MITSUBISHI ELECTRIC

MELSOFT

FA Integrated Engineering Software

Let's start iQ Works Version 2

-SW2DND-IQWK-E

MELSOFT iQ Works

iQ Platform

SAFETY PRECAUTIONS

(Read these precautions before using this product.)

Before using this product, please read this manual and the relevant manuals carefully and pay full attention to safety to handle the product correctly.

The precautions given in this manual are concerned with this product only. For the safety precautions of the programmable controller system, refer to the user's manual for the module used and the MELSEC iQ-R Module Configuration Manual.

In this manual, the safety precautions are classified into two levels: "⚠ WARNING" and "⚠ CAUTION".

⚠ **WARNING**	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
⚠ **CAUTION**	Indicates that incorrect handling may cause hazardous conditions, resulting in minor or moderate injury or property damage.

Under some circumstances, failure to observe the precautions given under "⚠ CAUTION" may lead to serious consequences.

Observe the precautions of both levels because they are important for personal and system safety.

Make sure that the end users read this manual and then keep the manual in a safe place for future reference.

[Design Instructions]

⚠ WARNING

- When data change, program change, or status control is performed from a personal computer to a running controller, create an interlock circuit outside the programmable controller system to ensure that the whole system always operates safely.
  Furthermore, for the online operations performed from a personal computer to a CPU module, the corrective actions against a communication error due to such as a cable connection fault should be predetermined as a system.

[Startup/Maintenance Instructions]

⚠ CAUTION

- The online operations (Program change, operating status change such as RUN-STOP switching, and remote control operation) performed from a personal computer to a running CPU module have to be performed after the manual has been carefully read and the safety has been ensured.
- When changing a program while a CPU module is RUN, it may cause a program corruption in some operating conditions. Fully understand the precautions before use.

CONDITIONS OF USE FOR THE PRODUCT

(1) Mitsubishi programmable controller ("the PRODUCT") shall be used in conditions;
i) where any problem, fault or failure occurring in the PRODUCT, if any, shall not lead to any major or serious accident; and
ii) where the backup and fail-safe function are systematically or automatically provided outside of the PRODUCT for the case of any problem, fault or failure occurring in the PRODUCT.

(2) The PRODUCT has been designed and manufactured for the purpose of being used in general industries.
MITSUBISHI SHALL HAVE NO RESPONSIBILITY OR LIABILITY (INCLUDING, BUT NOT LIMITED TO ANY AND ALL RESPONSIBILITY OR LIABILITY BASED ON CONTRACT, WARRANTY, TORT, PRODUCT LIABILITY) FOR ANY INJURY OR DEATH TO PERSONS OR LOSS OR DAMAGE TO PROPERTY CAUSED BY the PRODUCT THAT ARE OPERATED OR USED IN APPLICATION NOT INTENDED OR EXCLUDED BY INSTRUCTIONS, PRECAUTIONS, OR WARNING CONTAINED IN MITSUBISHI'S USER, INSTRUCTION AND/OR SAFETY MANUALS, TECHNICAL BULLETINS AND GUIDELINES FOR the PRODUCT.
("Prohibited Application")
Prohibited Applications include, but not limited to, the use of the PRODUCT in;

- Nuclear Power Plants and any other power plants operated by Power companies, and/or any other cases in which the public could be affected if any problem or fault occurs in the PRODUCT.
- Railway companies or Public service purposes, and/or any other cases in which establishment of a special quality assurance system is required by the Purchaser or End User.
- Aircraft or Aerospace, Medical applications, Train equipment, transport equipment such as Elevator and Escalator, Incineration and Fuel devices, Vehicles, Manned transportation, Equipment for Recreation and Amusement, and Safety devices, handling of Nuclear or Hazardous Materials or Chemicals, Mining and Drilling, and/or other applications where there is a significant risk of injury to the public or property.

Notwithstanding the above, restrictions Mitsubishi may in its sole discretion, authorize use of the PRODUCT in one or more of the Prohibited Applications, provided that the usage of the PRODUCT is limited only for the specific applications agreed to by Mitsubishi and provided further that no special quality assurance or fail-safe, redundant or other safety features which exceed the general specifications of the PRODUCTs are required. For details, please contact the Mitsubishi representative in your region.

INTRODUCTION

Thank you for purchasing the Mitsubishi FA software, MELSOFT series.
This manual describes programming and the functions required when using iQ Works Version 2.
Before using this product, please read the HELP of MELSOFT Navigator carefully, and develop familiarity with the functions and performance of iQ Works Version 2 to handle the product correctly.

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RELEVANT MANUALS

Manual name [manual number]	Description	Available form
Let's start iQ Works Version 2 [SH-081261ENG] (this manual)	Explains fundamental methods for such as managing the system using MELSOFT Navigator and using system labels for users inexperienced with iQ Works.	Print book
		e-Manual EPUB PDF

Point

e-Manual refers to the Mitsubishi FA electronic book manuals that can be browsed using a dedicated tool.
e-Manual has the following features:

- Required information can be cross-searched in multiple manuals.
- Other manuals can be accessed from the links in the manual.
- The hardware specifications of each part can be found from the product figures.
- Pages that users often browse can be bookmarked.

TERMS

Unless otherwise specified, this manual uses the following terms.

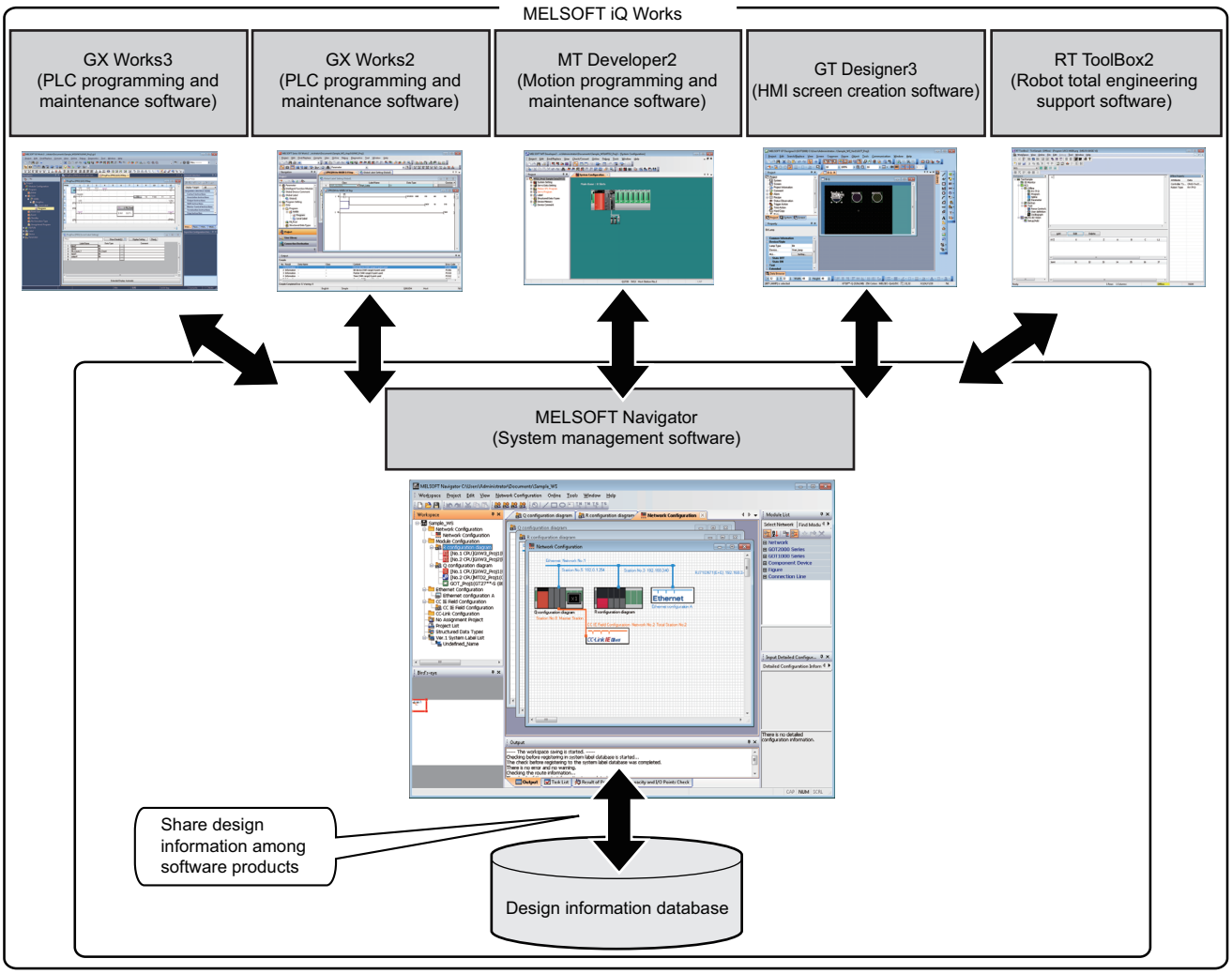
Term	Description
Controller	A generic term for CPU module, motion controller, and GOT
CW Configurator	A generic product name for SWnDND-RCCPU ('n' indicates version.)
FR Configurator2	A generic product name for SWnDND-FRC2-E ('n' indicates version.)
GOT	A generic term for Mitsubishi Graphic Operation Terminal GOT1000 series and GOT2000 series
GT Designer3	A generic product name for SWnDNC-GTWK3-E ('n' indicates version.)
GX Works2	A generic product name for SWnDNC-GXW2-E ('n' indicates version.)
GX Works3	A generic product name for SWnDND-GXW3-E ('n' indicates version.)
MELSOFT Navigator	A product name for the integrated development environment included in SWnDND-IQWK (MELSOFT iQ Works) ('n' indicates version.)
MT Developer2	A generic product name for SWnDNC-MTW2-E ('n' indicates version.)
Network	A generic term for CC-Link IE controller network, MELSECNET/H, and Ethernet
Personal computer	A generic term for personal computers on which Windows® operates
RnENCPU	A generic term for R04ENCPU, R08ENCPU, R16ENCPU, R32ENCPU, and R120ENCPU
RnSFCPU	A generic term for R08SFCPU, R16SFCPU, R32SFCPU, and R120SFCPU
RT ToolBox2	A generic product name for 3D-11C-WINE/3D-12C-WINE
System configuration diagram	A generic term for configuration diagrams such as network configuration and module configuration on which the configuration of respective devices are displayed graphically

1 OVERVIEW

This chapter explains the purpose and features of MELSOFT iQ Works.

1.1 About MELSOFT iQ Works

MELSOFT iQ Works is an integrated engineering software product which includes GX Works3, GX Works2, MT Developer2, GT Designer3, and RT ToolBox2.
While sharing design information such as system designs and programming in the whole control system, the system designing and programming efficiency are improved, and thus the total programming cost is reduced.
This manual explains the system management method using MELSOFT Navigator.
MELSEC iQ-R series, MELSEC iQ-F series, Q series, L series, and FX series are supported by MELSOFT Navigator.
This manual explains the operations on MELSEC iQ-R series or Q series.



- MELSOFT iQ Works includes FR Configurator2 (Mitsubishi inverter setup software) and CW Configurator (Setting/monitoring tool for C Controller module).
- Start MELSOFT Navigator and engineering software products by selecting an item from Start on Windows® as follows:
  - MELSOFT Navigator: [MELSOFT]/[MELSOFT Application] ⇨ [MELSOFT iQ Works] ⇨ [MELSOFT Navigator]
  - GX Works3: [MELSOFT]/[MELSOFT Application] ⇨ [GX Works3] ⇨ [GX Works3]
  - GX Works2: [MELSOFT]/[MELSOFT Application] ⇨ [GX Works2] ⇨ [GX Works2]
  - MT Developer2: [MELSOFT]/[MELSOFT Application] ⇨ [MT Works2] ⇨ [MT Developer2]
  - GT Designer3: [MELSOFT]/[MELSOFT Application] ⇨ [GT Works3] ⇨ [GT Designer3]
  - RT ToolBox2: [MELSOFT]/[MELSOFT Application] ⇨ [RT ToolBox2] ⇨ [RT ToolBox2]
  - FR Configurator2: [MELSOFT]/[MELSOFT Application] ⇨ [FR Configurator2]
  - CW Configurator: [MELSOFT]/[MELSOFT Application] ⇨ [CW Configurator]

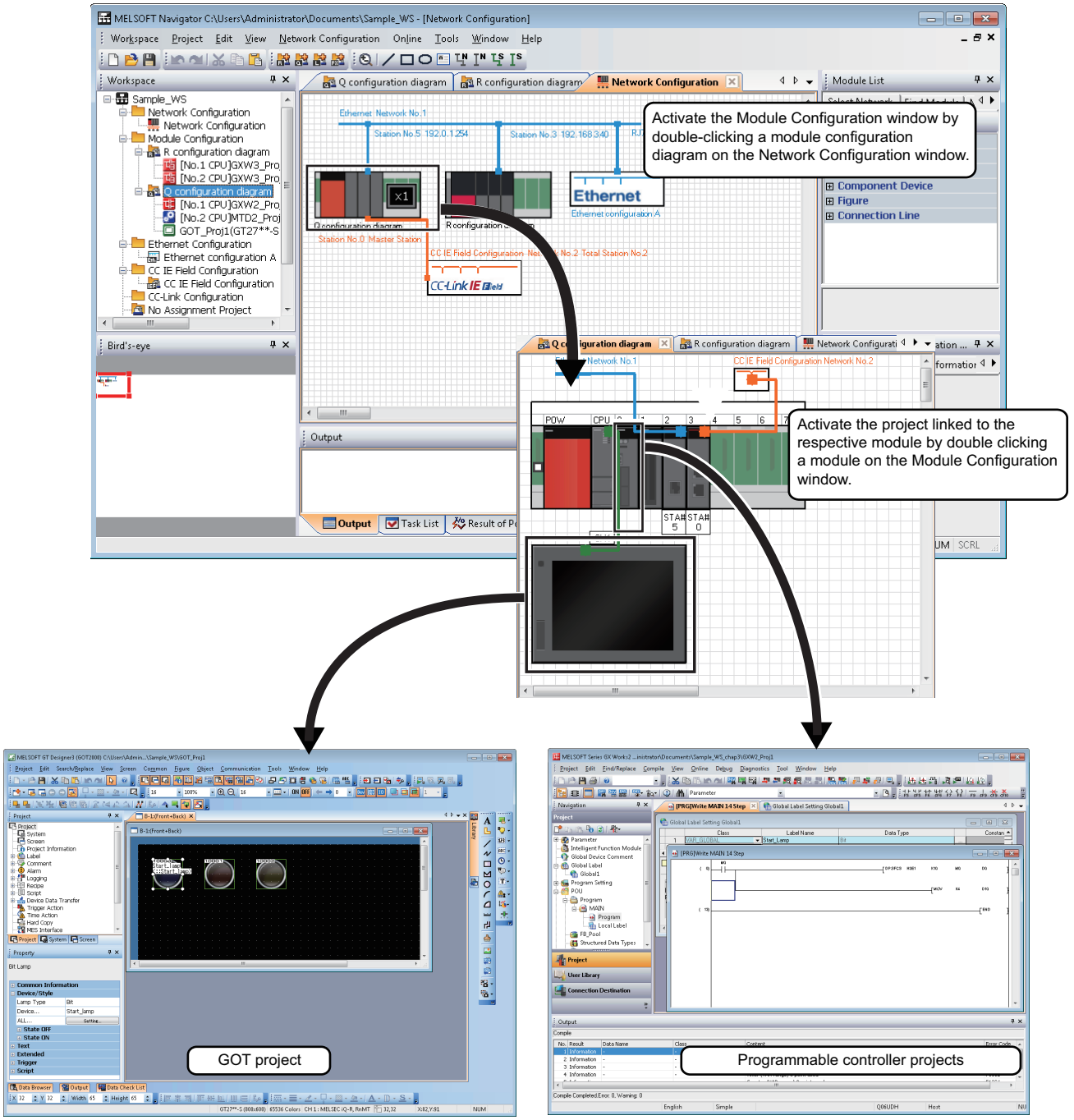
1.2 Features

This section explains the features of MELSOFT iQ Works.

Project management using graphical system configuration diagrams

Projects can be managed by using graphical diagrams of the actual hardware device configuration of the whole system, linking each device and project.

Only by placing the prepared elements, the configuration diagram as follows can be created easily.

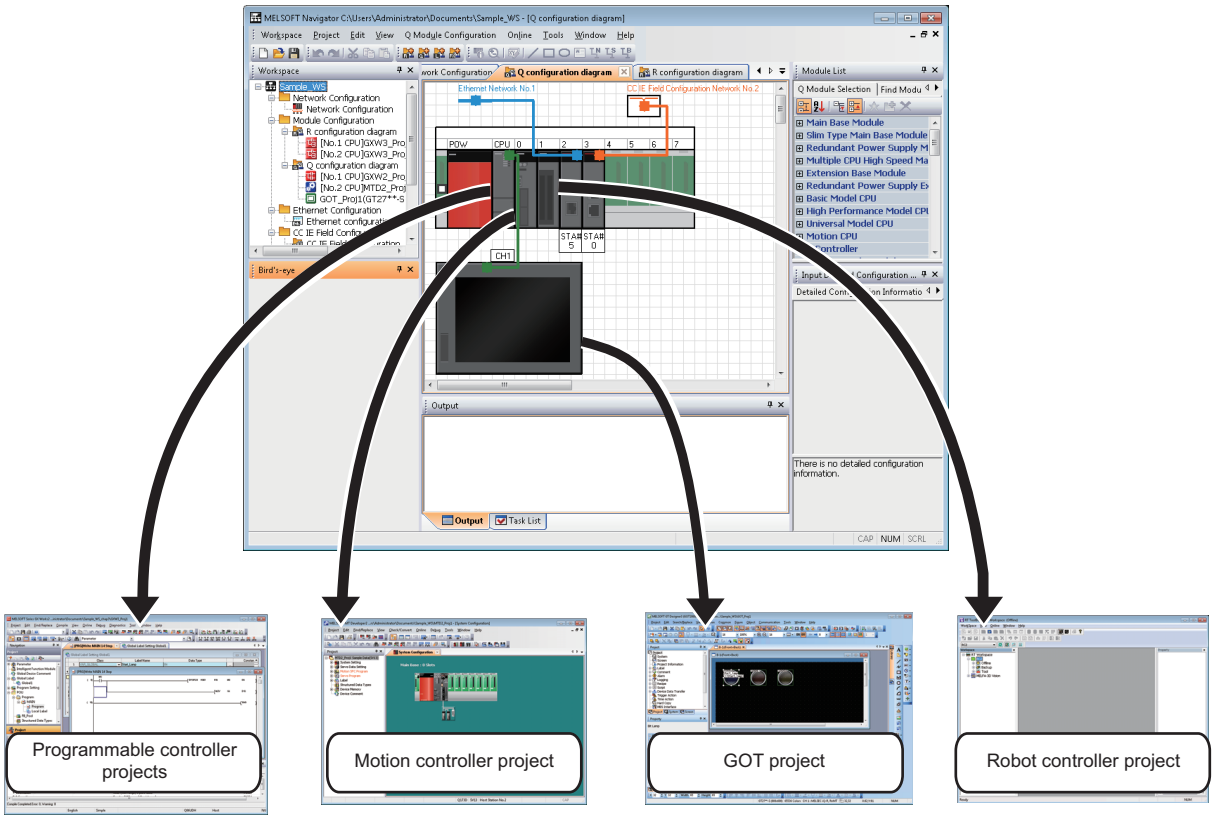

Activate the Module Configuration window by double-clicking a module configuration diagram on the Network Configuration window.
Activate the project linked to the respective module by double clicking a module on the Module Configuration window.
GOT project
Programmable controller projects

Improved project management efficiency

■Multiple project management using a workspace

Multiple project data (programmable controller projects, motion controller projects, GOT projects, and robot controller projects) can be managed totally using a workspace.

Created date and modified date of each project can be confirmed with the project list.



Simplified parameter settings

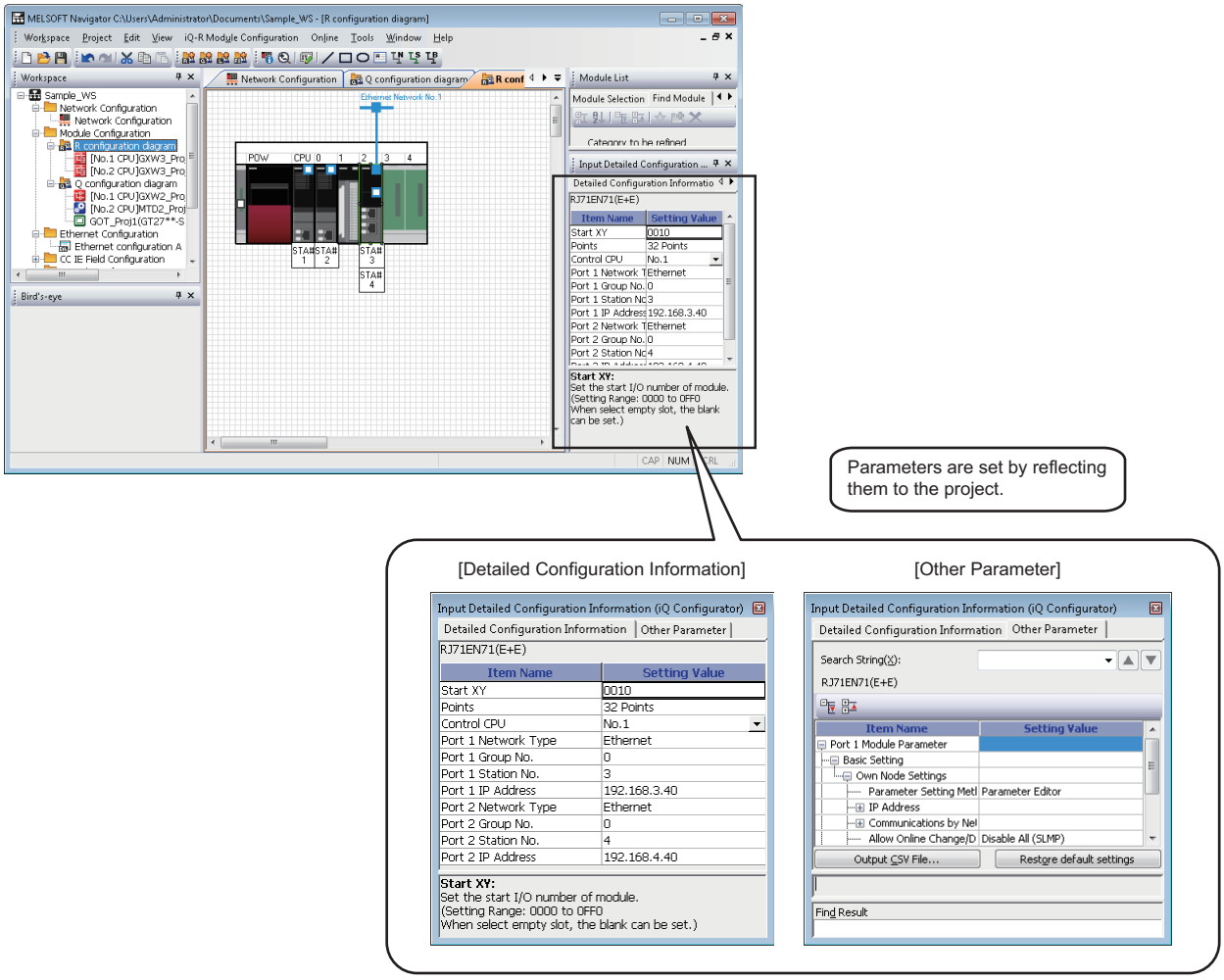
Parameters, such as I/O assignment and network parameters can be configured without opening each engineering software (GX Works3, GX Works2, MT Developer2, and GT Designer3).

For multiple CPU configuration, parameters set to the project in CPU No.1 can be utilized for the project on CPU No.2 and later.

For details on the parameter setting function, refer to the following chapter.

☞ Page 18 OPERATING PROCEDURE OF MELSOFT Navigator

<I/O assignment/Network parameter>



Improved programming efficiency using system labels

System labels are the labels that can be used in any project in the workspace (in the devices allocated in the network configuration diagram or module configuration diagram).

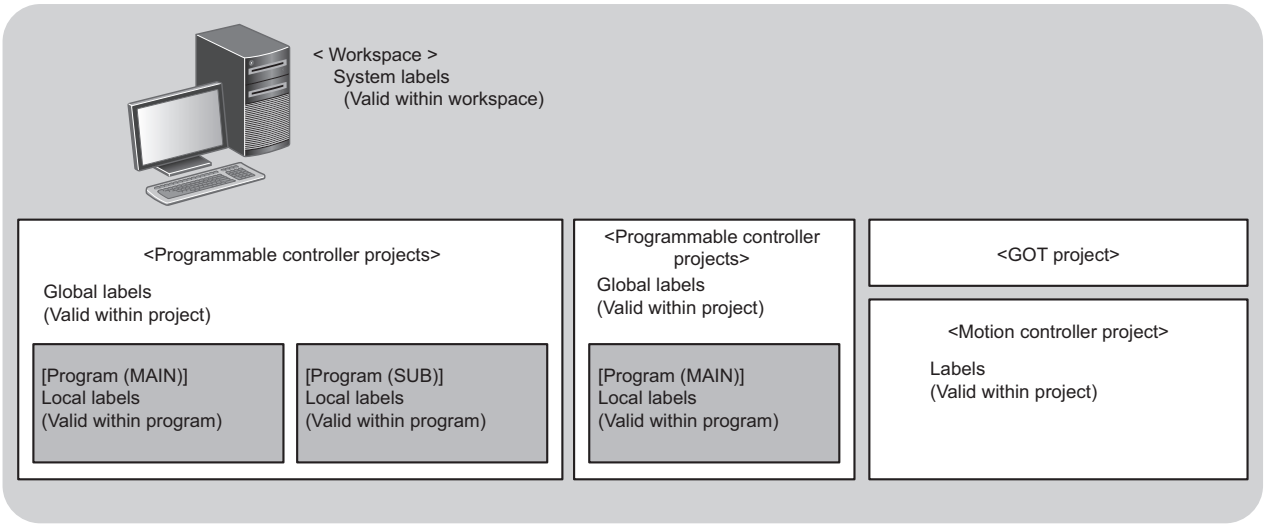
Programming (drawing) efficiency is improved by opening devices of the programmable controller projects and motion controller projects as system labels, and sharing them in multiple projects.

As the device assignment settings are changed in batch, device assignment changes are not necessary on other projects or graphics.

There are two kinds of system labels; system label Ver.1 and system label Ver.2. For details on the functions of each system label, refer to the Help of MELSOFT Navigator.

For the method on how to use the system labels, refer to the following chapter.

☞ Page 84 USING SYSTEM LABELS



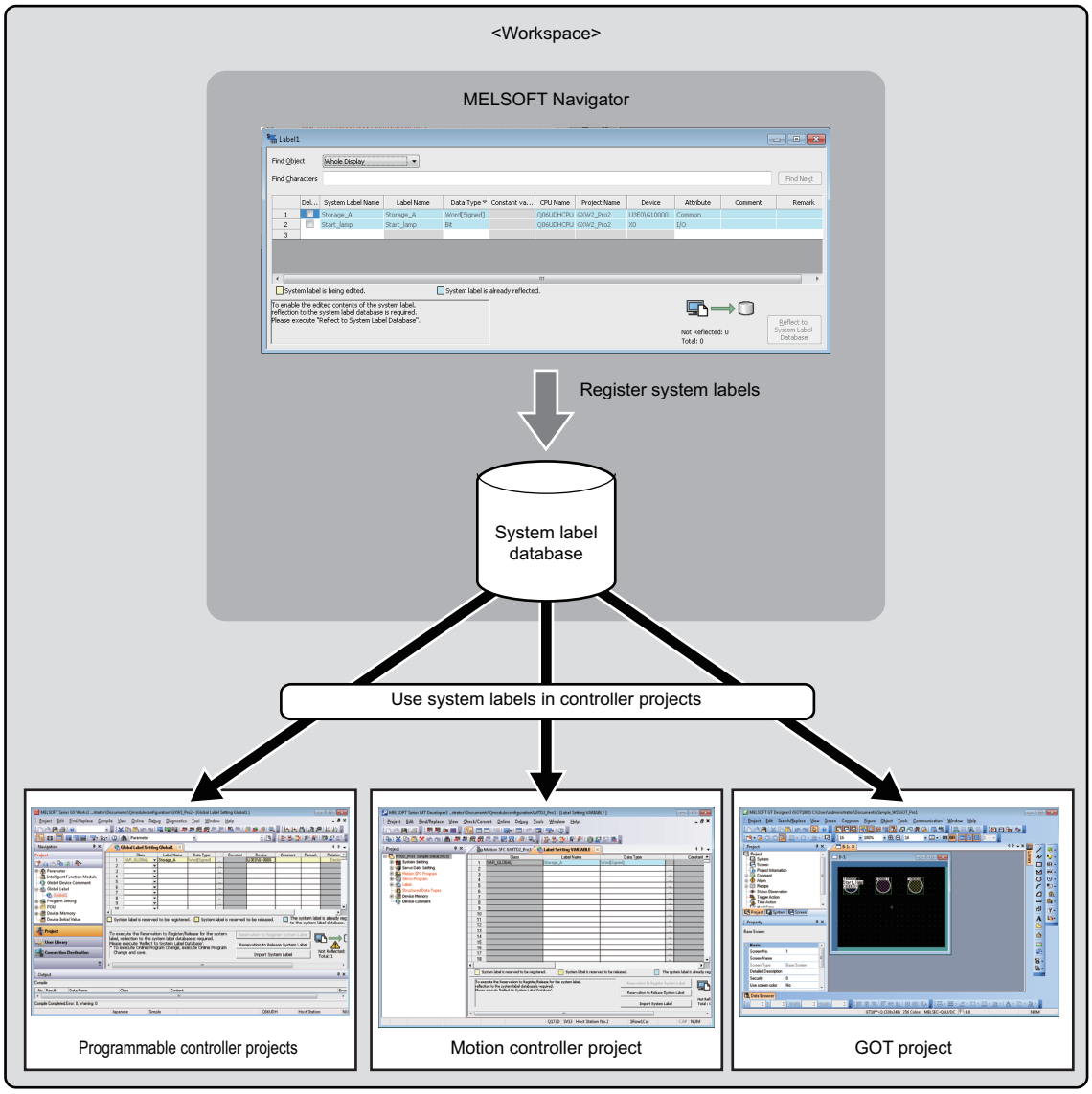
To use the system labels in MELSOFT iQ Works, the following two methods can be used:

- Top-down design method which utilizes system labels registered in MELSOFT Navigator from each controller project.
- Bottom-up design method which utilizes global labels (labels) defined as system labels in each controller project.

■Top-down design method

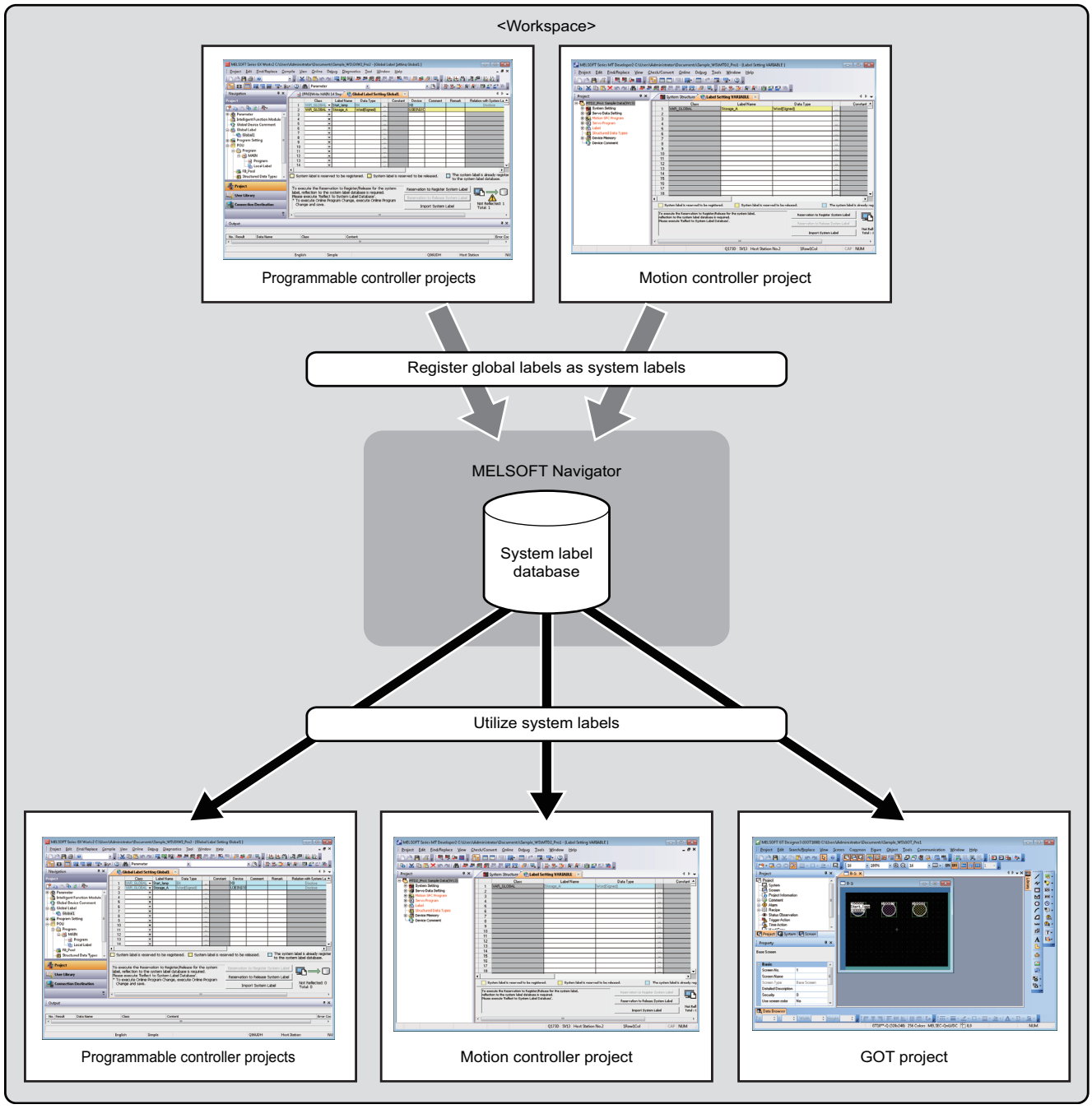
Design system labels for accessing GOT or communicating among the devices after designing network configuration in the upper process.

In top-down design method, register system labels using MELSOFT Navigator, import them to global labels of controller projects, and then assign devices.



■Bottom-up design method

Design system labels for accessing GOT by using global labels which are registered in controller projects as system labels, for a such case when configuring system by utilizing existing projects.

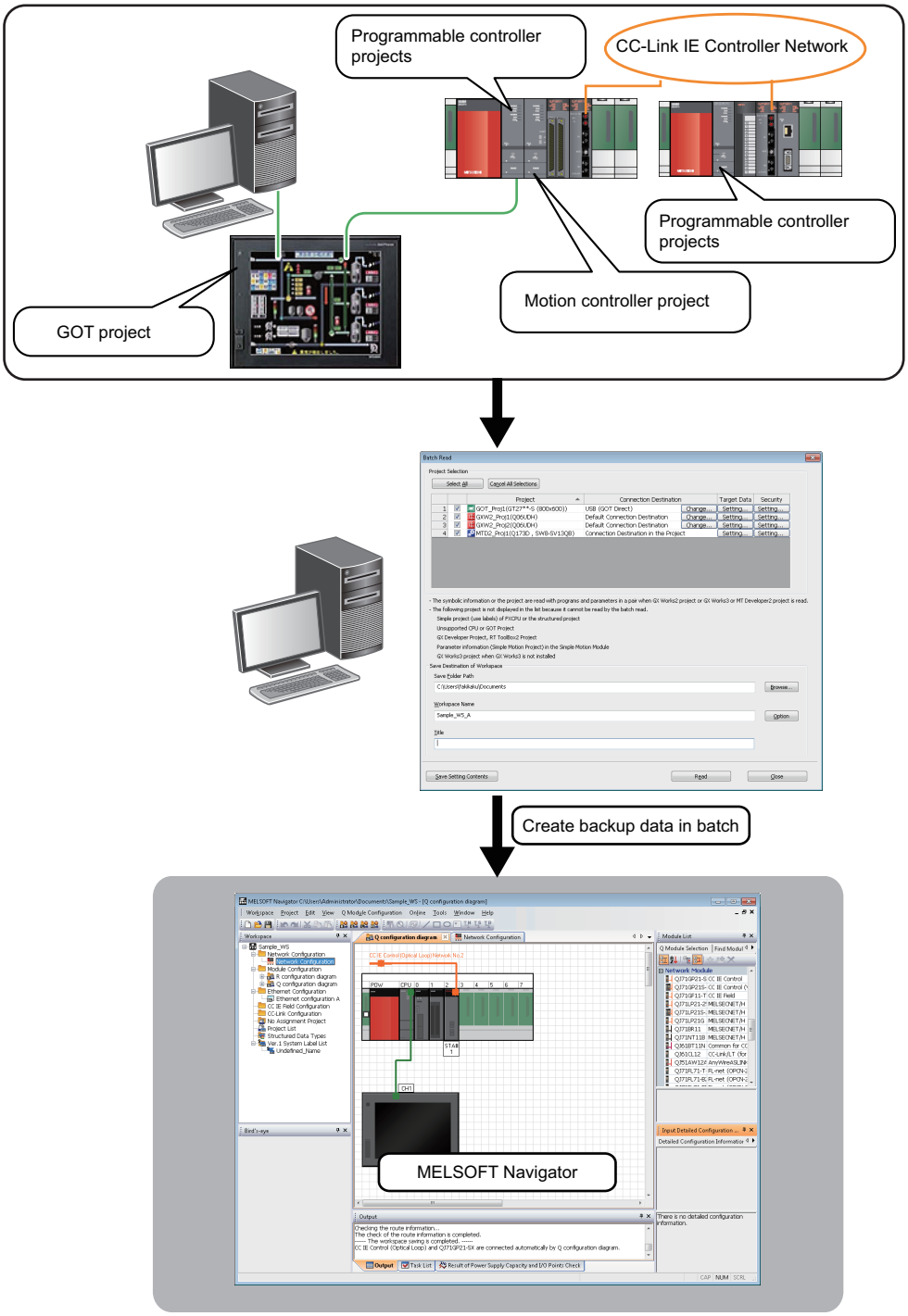


Simplified data backup operation

All controller projects in the workspace can be read and saved in batch without opening each engineering software (GX Works3, GX Works2, MT Developer2, and GT Designer3).

For details on the Batch read function, refer to the following chapter.

☞ Page 126 CREATING SYSTEM BACKUP DATA

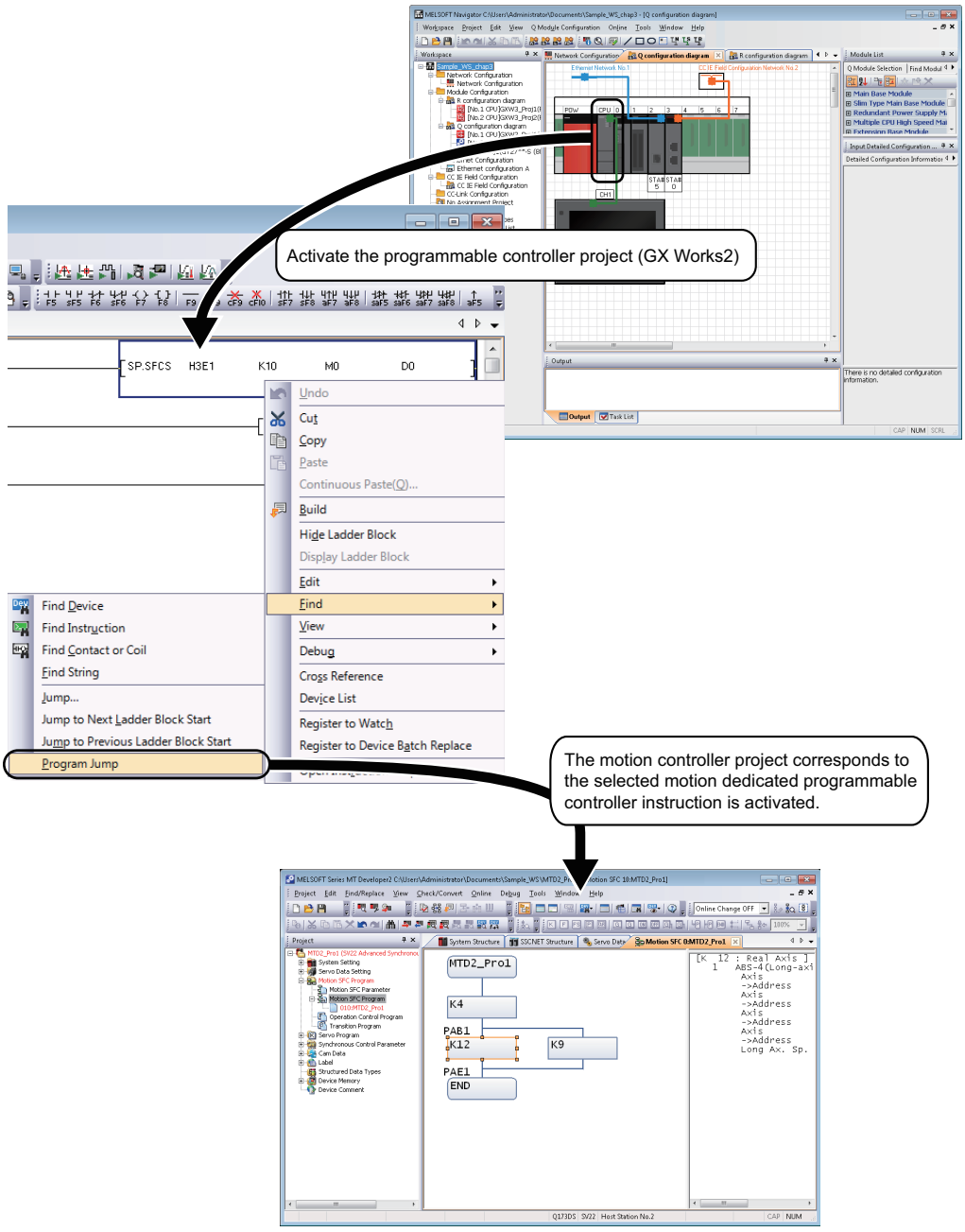


Improved programming efficiency by linking with motion controller programs

For Q series, a motion controller program, which corresponds to the motion dedicated programmable controller instruction selected in the sequence program, can be activated by a simple mouse operation. This function significantly improves programming efficiency.

For details on the Program jump function, refer to the following chapter.

☞ Page 131 USING PROGRAM JUMP FUNCTION

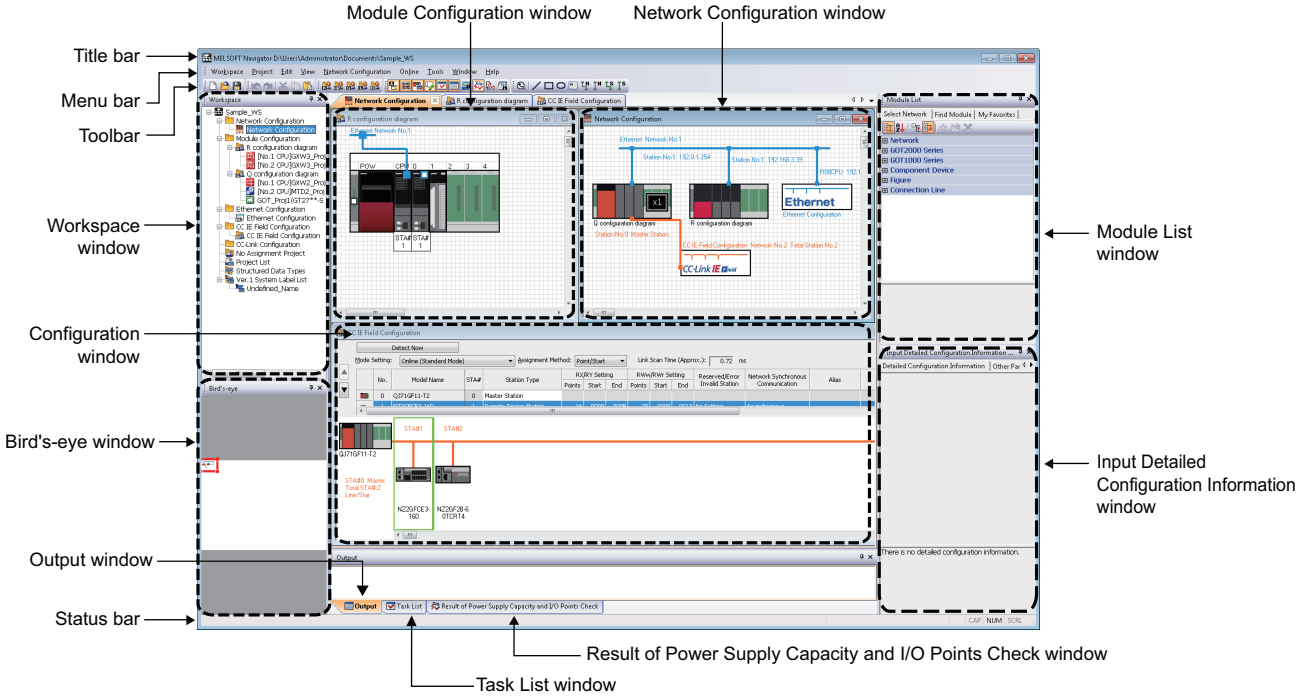


2 SCREEN CONFIGURATION

This chapter explains the screen configuration of MELSOFT Navigator.

2.1 Screen Configuration

Window



Displayed items

Item	Description
Title bar	Displays a title of product name, workspace path, and active window.
Menu bar	Displays items of the basic menu.
Toolbar	Displays tool buttons for functions performed frequently.
Workspace window	Displays objects managed in a workspace in tree format.
Bird's-eye window	Displays a bird's eye view of the network configuration window.
Module Configuration window	Set the details of MELSEC iQ-R series/MELSEC iQ-F series/Q series/L series/FX series module configurations which are placed on the network configuration diagram graphically.
Network Configuration window	Set a network configuration graphically.
Configuration window	Set a configuration such as CC IE Field and Ethernet graphically.
Module List window	Displays modules used for MELSEC iQ-R series/MELSEC iQ-F series/Q series/L series/FX series in a list format.
Input Detailed Configuration Information window	Configure the various parameters, such as I/O assignment and network parameters.
Output window	Displays messages and log outputs being processed in the parameter reflection process in a list format.
Task List window	Displays a result of system configuration check, power supply capacity and I/O points check, and system label consistency check in a list format.
Result of Power Supply Capacity and I/O Points Check window	Displays a result of power supply capacity and I/O points check.
Status bar	Displays information about the selected project.

Point

Help information of MELSOFT iQ Works is displayed by pressing the F1 key.

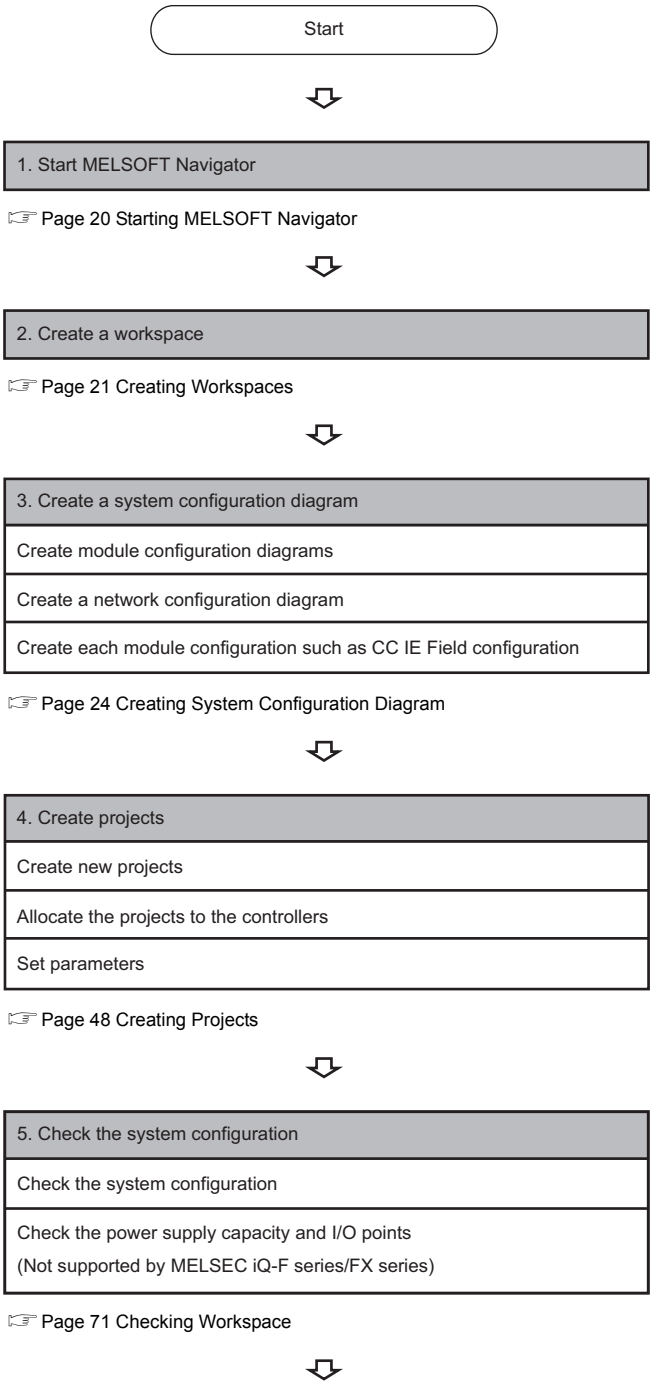
MEMO

3 OPERATING PROCEDURE OF MELSOFT Navigator

This chapter explains the methods for creating workspaces and system configurations using MELSOFT Navigator.

3.1 Procedure

This section explains the procedure of MELSOFT Navigator from start to end.


Start
1. Start MELSOFT Navigator
☞ Page 20 Starting MELSOFT Navigator
2. Create a workspace
☞ Page 21 Creating Workspaces
3. Create a system configuration diagram
Create module configuration diagrams
Create a network configuration diagram
Create each module configuration such as CC IE Field configuration
☞ Page 24 Creating System Configuration Diagram
4. Create projects
Create new projects
Allocate the projects to the controllers
Set parameters
☞ Page 48 Creating Projects
5. Check the system configuration
Check the system configuration
Check the power supply capacity and I/O points
(Not supported by MELSEC iQ-F series/FX series)
☞ Page 71 Checking Workspace

6. Edit the created projects

Edit the projects

Utilize an existing project

Perform controller data read/write/verification

☞ Page 73 Editing Projects

7. Save the created workspace

☞ Page 80 Saving Workspaces

8. Print the project

☞ Page 81 Printing Workspaces

9. Close the workspace

☞ Page 82 Closing Workspaces

10. Exit MELSOFT Navigator

☞ Page 83 Exiting MELSOFT Navigator

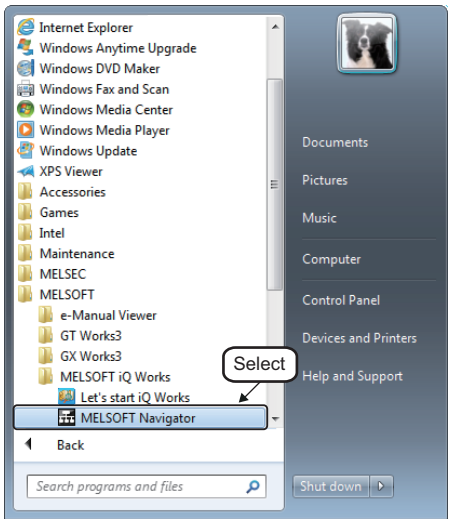
Precautions

Do not change the storage location and names of folders/files of a created workspace/project using the application such as Windows® Explorer.

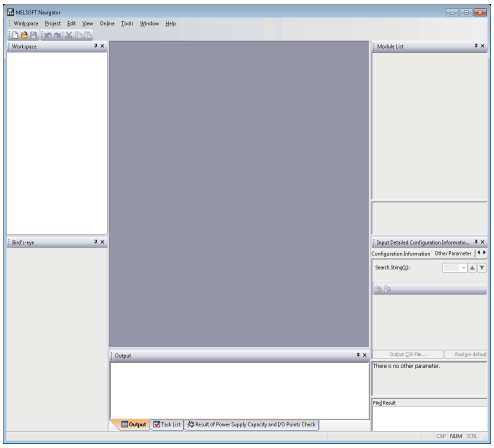
3.2 Starting MELSOFT Navigator

Start MELSOFT Navigator.

Operating procedure



Start MELSOFT Navigator from Start on Windows®.



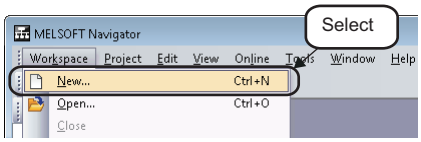
MELSOFT Navigator is started.

3.3 Creating Workspaces

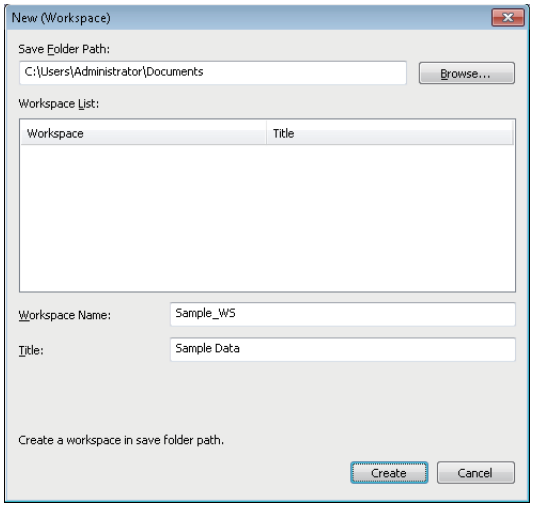
Create new workspace

Create a new workspace.

Operating procedure



1. Select [Workspace] ⇨ [New] in the menu bar.

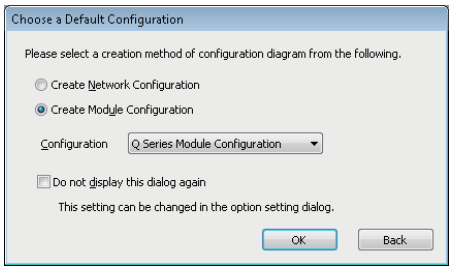


"New (Workspace)" screen is displayed.

2. Set "Save Folder Path", "Workspace Name", and "Title" for the new workspace.
After setting the items, click the [Create] button.

Setting content (sample)

- Save Folder Path: C:\Users\(user name)\Documents
- Workspace name: Sample_WS
- Title (option): Sample Data

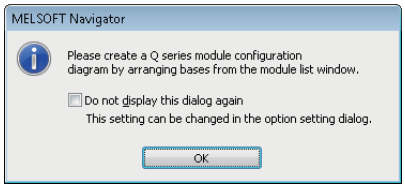

Choose a Default Configuration
Please select a creation method of configuration diagram from the following.
Create Network Configuration
Create Module Configuration
Configuration
Q Series Module Configuration
Do not display this dialog again
This setting can be changed in the option setting dialog.
OK
Back

The "Choose a Default Configuration" screen is displayed.

3. Select "Create Module Configuration" and click the [OK] button.

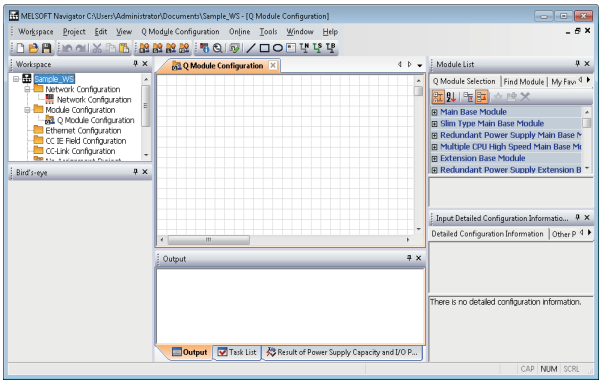
Setting content (sample)

- Configuration: Q Series Module Configuration


MELSOFT Navigator
Please create a Q series module configuration diagram by arranging bases from the module list window.
Do not display this dialog again
This setting can be changed in the option setting dialog.
OK

The message shown on the left is displayed.

4. Read the message and click the [OK] button.

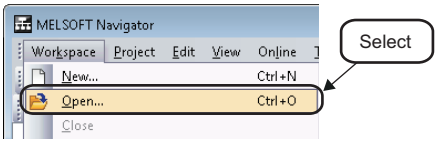


The new workspace is created.

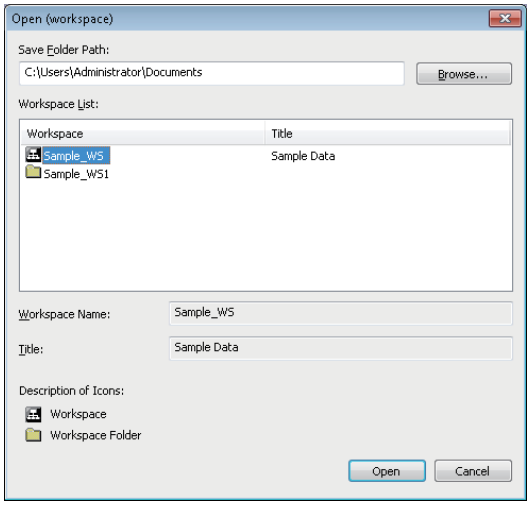
Opening existing workspaces

Open an existing workspace.

Operating procedure



1. Select [Workspace] ⇨ [Open] in the menu bar.



The "Open (Workspace)" screen is displayed.

2. Select "Save Folder Path" and "Workspace" for the workspace to be opened, and click the [Open] button.

The workspace folder copied by the application such as Windows® Explorer can also be selected.

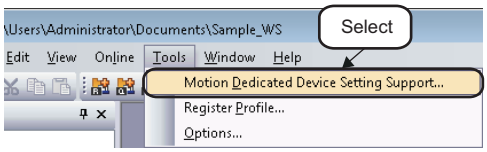
Setting content (sample)

- Save Folder Path: C:\Users\(user name)\Documents
- Workspace Name: Sample_WS

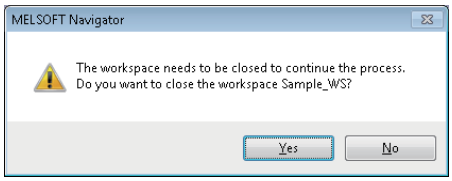
Creating workspaces for motion system

Create a workspace for motion system using templates consist of a combination of CPU module and motion controller, which are used for multiple CPU system configuration.

Operating procedure

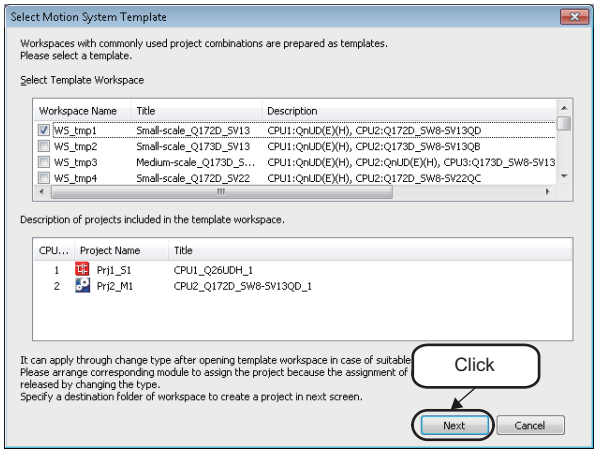


1. Select [Tools] ⇨ [Motion Dedicated Device Setting Support] in the menu bar.


MELSOFT Navigator
The workspace needs to be closed to continue the process.
Do you want to close the workspace Sample_WS?
Yes
No

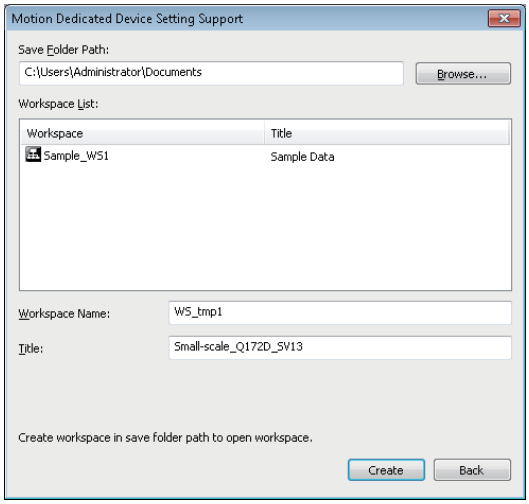
The message shown on the left is displayed.

2. Read the message and click the [Yes] button.



The "Select Motion System Template" screen is displayed.

3. Select the workspace name from "Select Template Workspace", and click the [Next] button.

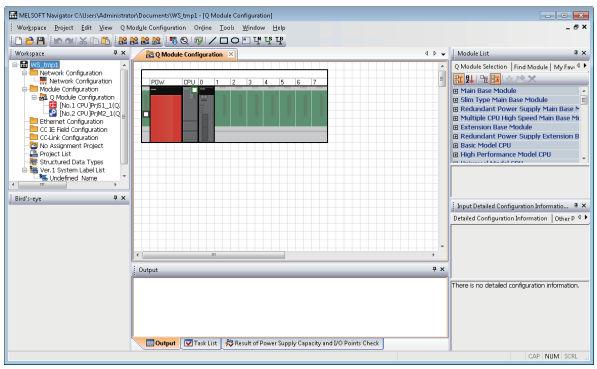


The "Motion Dedicated Device Setting Support" screen is displayed.

4. Set "Save folder path" and "Workspace name" for the template workspace.
After setting the items, click the [Create] button.

Setting content (sample)

- Save Folder Path: C:\Users\(user name)\Documents
- Workspace Name: WS_tmp1



The workspace for motion system is displayed.

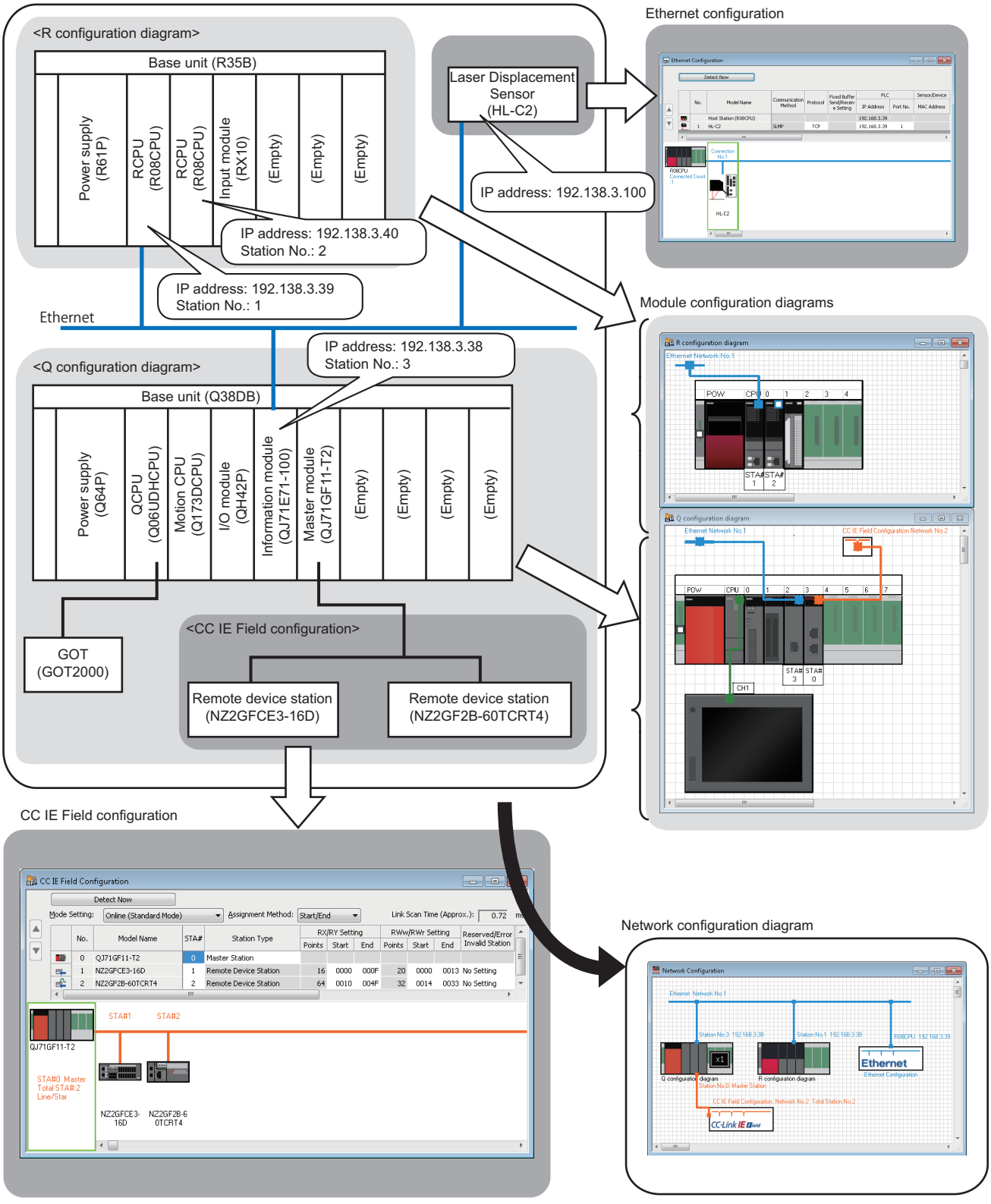
3.4 Creating System Configuration Diagram

Create a system configuration diagram.

Created module configuration diagrams are reflected to the network configuration diagram.

System configuration to be created

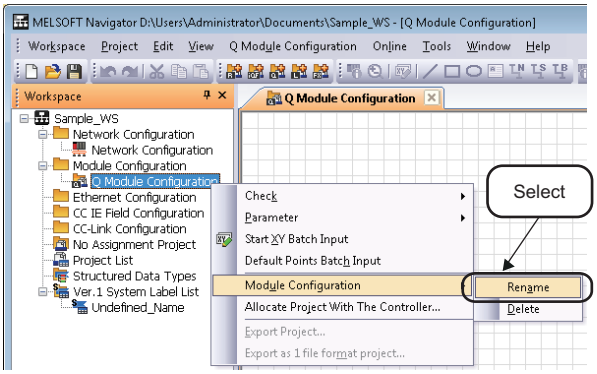
Create the following system configuration diagram.



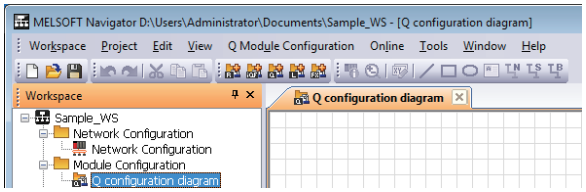
Creating module configuration diagrams

Create a module configuration diagram by placing modules on the Module Configuration window.
For MELSEC iQ-R series, a module configuration diagram can be created by reading from the actual system configuration. For more details, refer to the following section.
☞ Page 28 Detecting actual system configuration of MELSEC iQ-R series
In addition, for MELSEC iQ-R series, module configuration diagram can also be created by importing parameters in each project after allocating a controller. For details on importing parameters, refer to the following section.
☞ Page 70 Importing parameters configured in each project

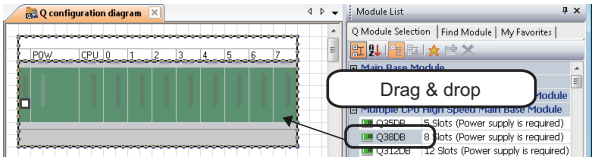
Operating procedure



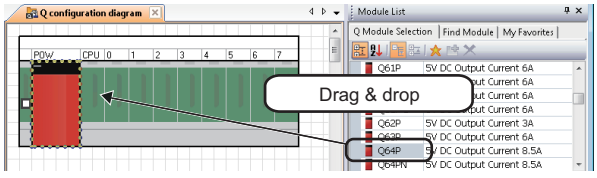
1. Right-click "Q Module Configuration" on the Workspace window, and select [Module Configuration] ⇨ [Rename] in the shortcut menu.



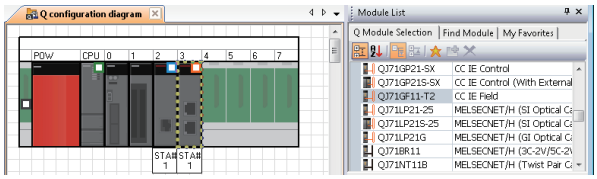
2. Enter 'Q configuration diagram' to change the module configuration diagram name.



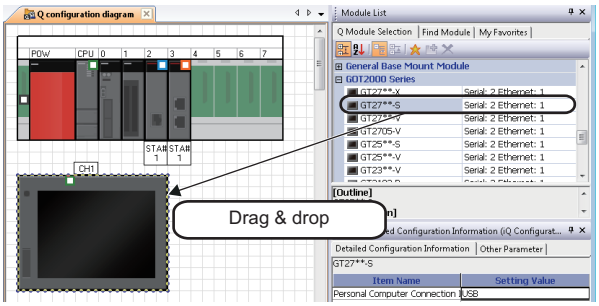
3. Select the base unit (Q38DB) from the Module List window, and drag and drop it onto the Module Configuration window.



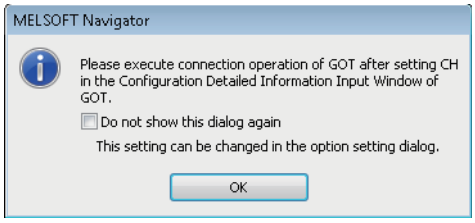
4. Select the power supply module (Q64P) from the Module List window, and drag and drop it onto the base unit.



5. Select modules from the Module List window, and drag and drop them onto the base unit following the same procedure in the step 4, and complete the creation of "Q configuration diagram".

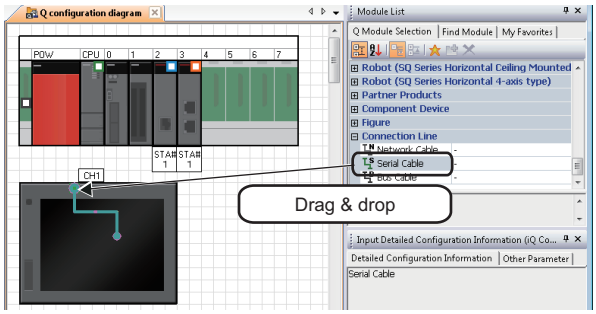


6. Select the GOT unit (GT27**-S) from the Module List window, and drag and drop it onto the Module Configuration window.

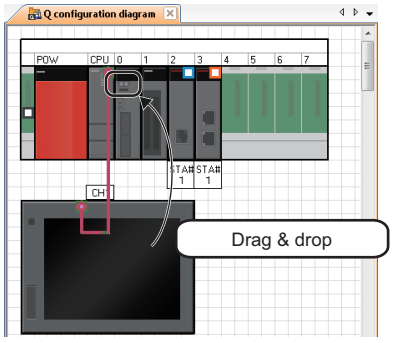

MELSOFT Navigator
Please execute connection operation of GOT after setting CH in the Configuration Detailed Information Input Window of GOT.
Do not show this dialog again
This setting can be changed in the option setting dialog.
OK

The message shown on the left is displayed.

7. Read the message and click the [OK] button.

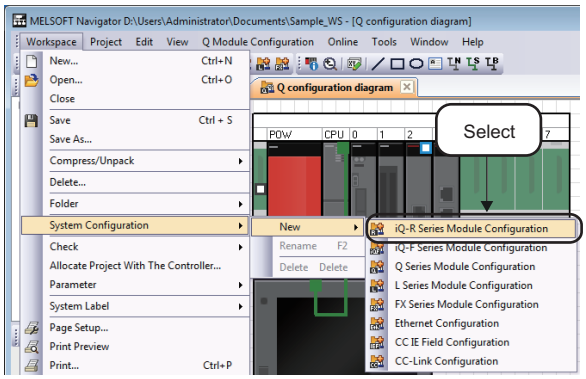


8. Select "Serial Cable" from the Module List window, and drag and drop it onto the connection port of the GOT unit.

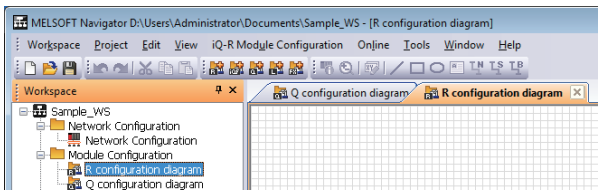


9. Drag and drop the edge of connection line to the connection port of the connection target CPU module.

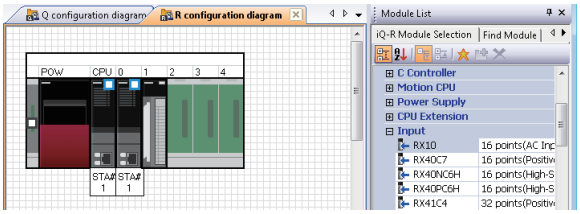
The GOT unit is connected to the CPU module.



10. Select [Workspace] ⇨ [System Configuration] ⇨ [New] ⇨ [iQ-R Series Module Configuration] in the menu bar to create a new module configuration diagram, "iQ-R Module Configuration".

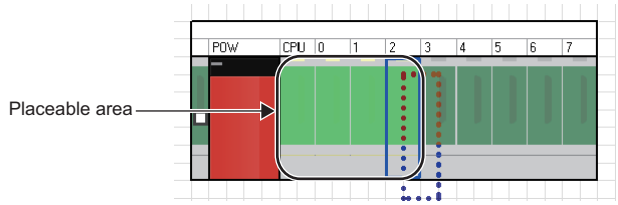


11. Change the module configuration diagram name to 'R configuration diagram' following the same procedure in the step 1 and step 2.

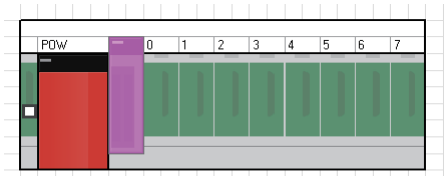


12. Select modules from the Module List window, and drag and drop them onto the base unit following the same procedure in the step 3 and step 4.

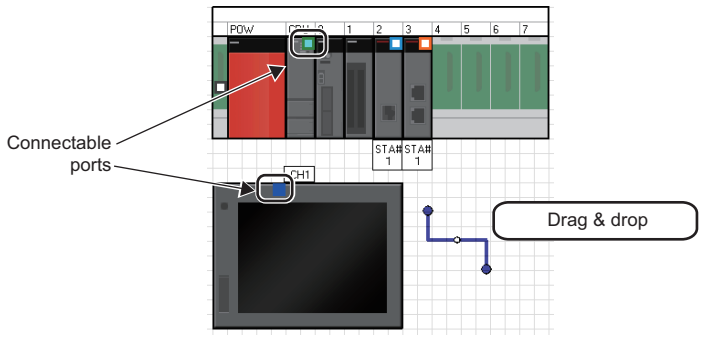
- When a module is dragged onto the base unit, the placeable areas of the base unit are displayed in light green as shown below.



- If a module is not placed properly, the whole module is displayed in pink as shown below.



- When a connection line is dragged and dropped onto the Module Configuration window, the connectable ports of the respective controllers are displayed as shown below.



■Considerations when placing RnENCPU

RnENCPU consists of the two slots that are the CPU part and the network part.

The module configuration diagram shows the CPU module representing the CPU part and the CPU extension module (_RJ71EN71) representing the network part in combination.

Place a CPU extension module on the right side of RnENCPU.

■Detecting actual system configuration of MELSEC iQ-R series

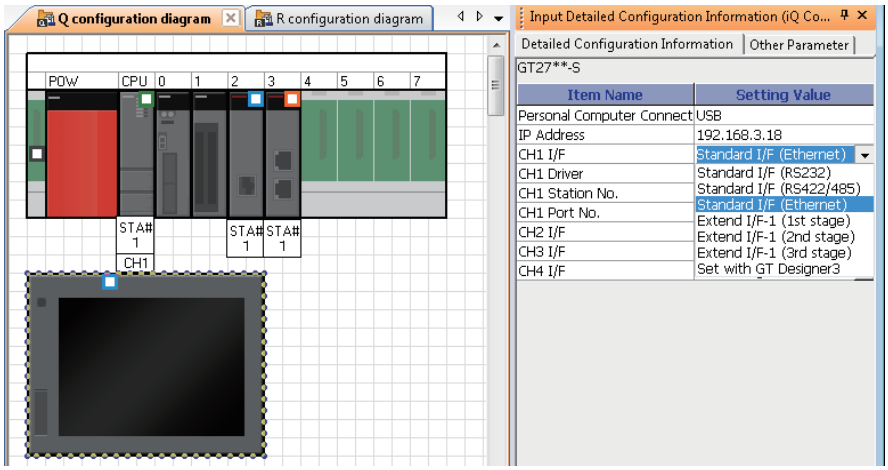
The actual system configuration in a CPU No.1 can be reflected on the Module Configuration window by selecting [iQ-R Module Configuration] ⇨ [Online] ⇨ [Module Configuration Detect Now] in the menu bar.

When detecting the actual system configuration on other than CPU No.1, right-click the target CPUs on the iQ-R module configuration diagram, and select [Online] ⇨ [Module Configuration Detect Now] from the shortcut menu.

For automatic detection, a project which can be connected to MELSEC iQ-R series CPU module is required.

■Connection ports of GOT unit

By setting parameters on the Input Detailed Configuration Information window, I/F type and number of connectable points of GOT unit can be changed.



Creating module configuration diagrams for L series

For L series, create module configuration diagrams refer to this section.

Basically, L series module configurations can be created in a similar way to MELSEC iQ-R series or Q series.

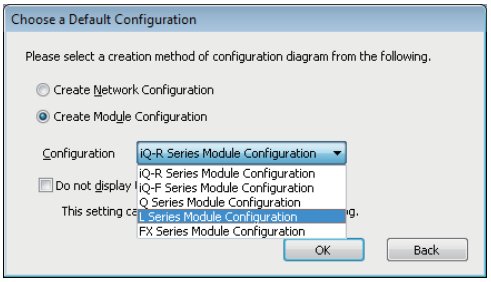
For the operations that differ from MELSEC iQ-R series or Q series, refer to the Point in this section.

☞ Page 32 Attaching display unit

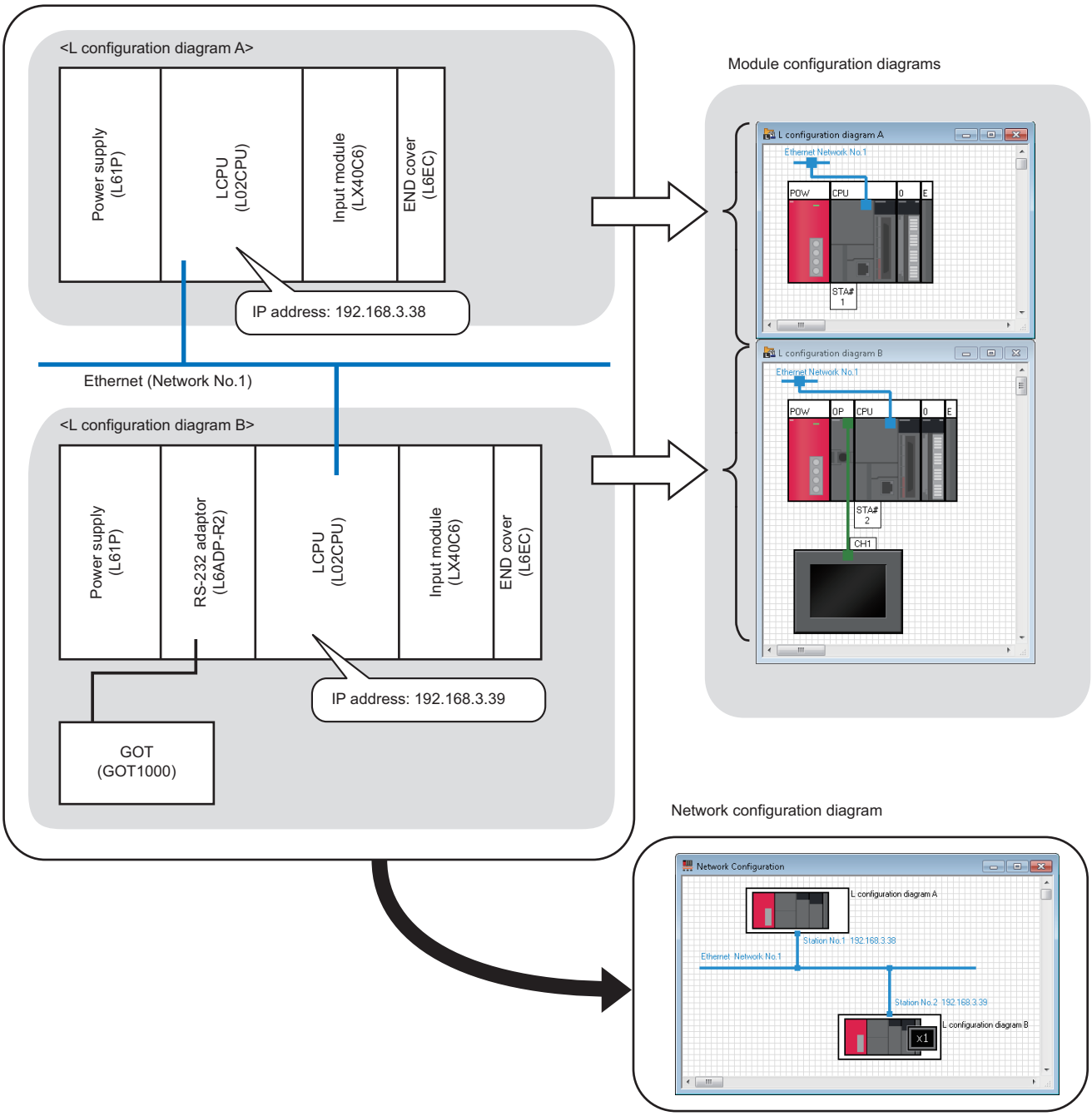
Point

When creating workspaces of L series, select "L Series Module Configuration" in the "Choose a Default Configuration" screen. For the method of creating workspaces, refer to the following section.

☞ Page 21 Creating Workspaces

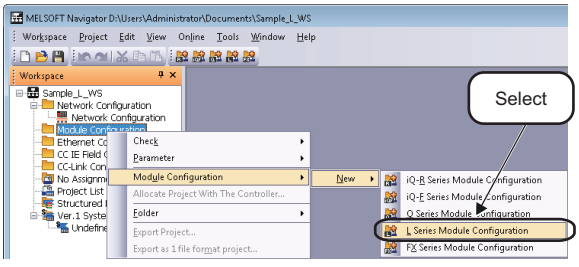


■System configuration to be created

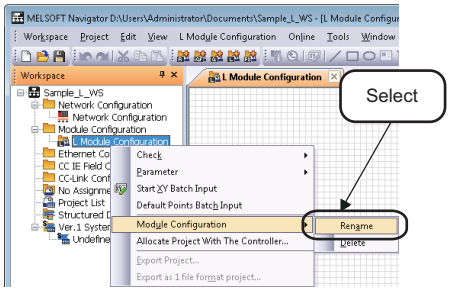


■Creating module configuration diagrams

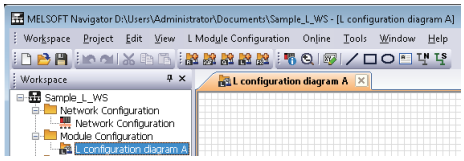
Operating procedure



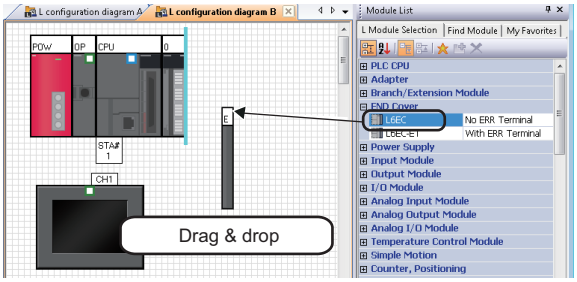
1. Right-click "Module Configuration" on the Workspace window, and select [Module Configuration] ⇨ [New] ⇨ [L Series Module Configuration] in the shortcut menu.



2. Right-click "L Module Configuration" on the Workspace window, and select [Module Configuration] ⇨ [Rename] in the shortcut menu.



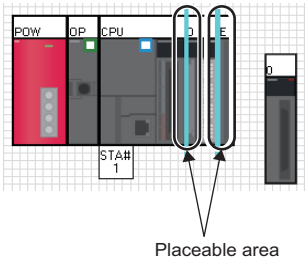
3. Enter 'L configuration diagram A' to change the module configuration diagram name.



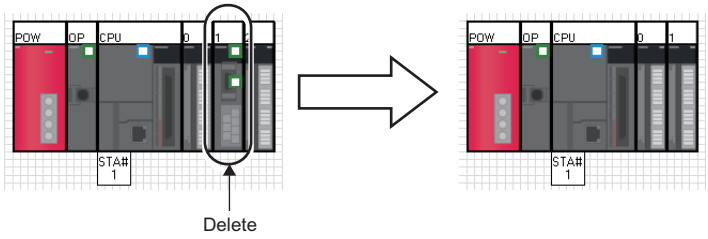
4. Select modules from the Module List window, and drag and drop them onto the Module Configuration window following the same procedure as Q series in the step 4 through step 9.

☞ Page 25 Creating module configuration diagrams

- When a module is dragged onto the Module Configuration window, the placeable areas are displayed in light blue as shown below.



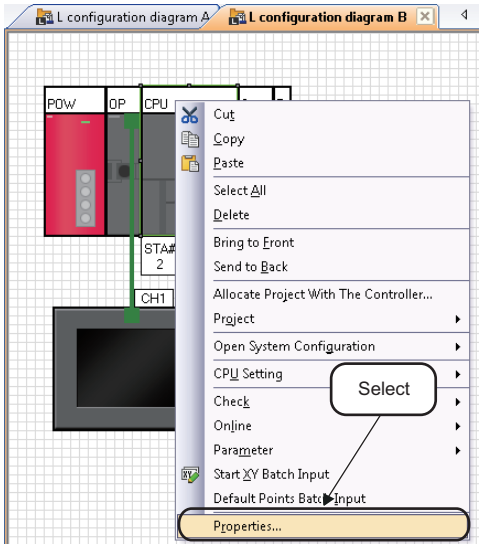
- When a placed module is deleted from the Module Configuration window, the modules adjacent to the deleted module are automatically placed as shown below.



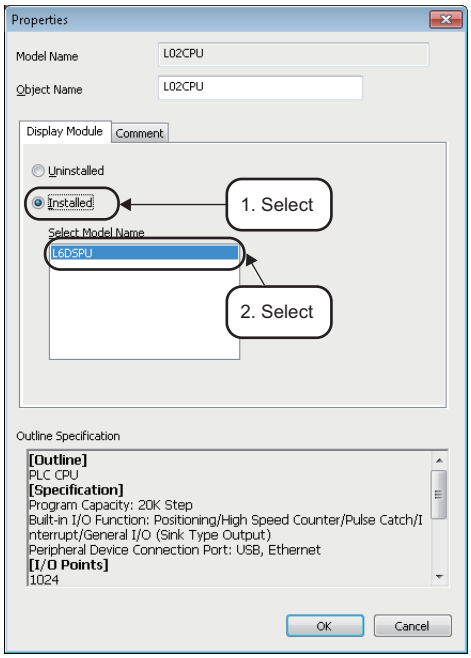
■Attaching display unit

Display unit can be attached on L series CPU modules.

Operating procedure



1. Right click the CPU module on the Module Configuration window, and select [Properties] in the shortcut menu.

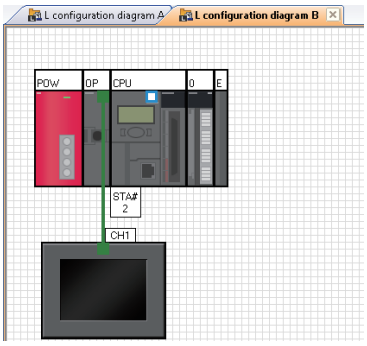


The "Properties" screen is displayed.

2. Select "Installed" in the [Display Module] tab and select the model name to be attached from "Select Model Name". After selecting them, click the [OK] button.

Setting content (sample)

- Select Model Name: L6DSPU



The display unit is attached on the CPU module.

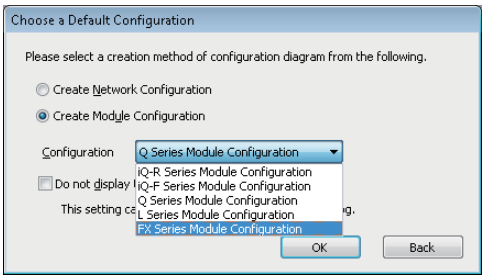
Creating module configuration diagrams for MELSEC iQ-F series/FX series

For MELSEC iQ-F series/FX series, create module configuration diagrams refer to this section.
Basically, MELSEC iQ-F series/FX series module configurations can be created in a similar way to MELSEC iQ-R or Q series.

Point

When creating workspaces of MELSEC iQ-F series or FX series, select "iQ-F Series Module Configuration" or "FX Series Module Configuration" in the "Choose a Default Configuration" screen. For the method of creating workspaces, refer to the following section.

☞ Page 21 Creating Workspaces



Precautions

The model name of special blocks of FX series that support MELSOFT iQ Works are displayed on the Module List window when the related software*1 is installed. When using special blocks, install the related software of the respective modules in advance.

*1 For information on obtaining the related software, consult your local Mitsubishi representative.

■FX series modules that support MELSOFT iQ Works

- Main unit
  FX3S, FX3G, FX3GC, FX3U, FX3UC
- Special block
  Ethernet special function block (FX-ENET series)
- Special adapter
  Ethernet communication special adapter (FX3U-ENET-ADP)

For FX series, special blocks and special adapters are attached to a main unit which combines power supply, CPU, and I/O module.

However, the following blocks and units are not supported: special blocks and special units which do not contain related project or configuration software, and extension blocks which do not support a function to check power supply capacity and I/O points.

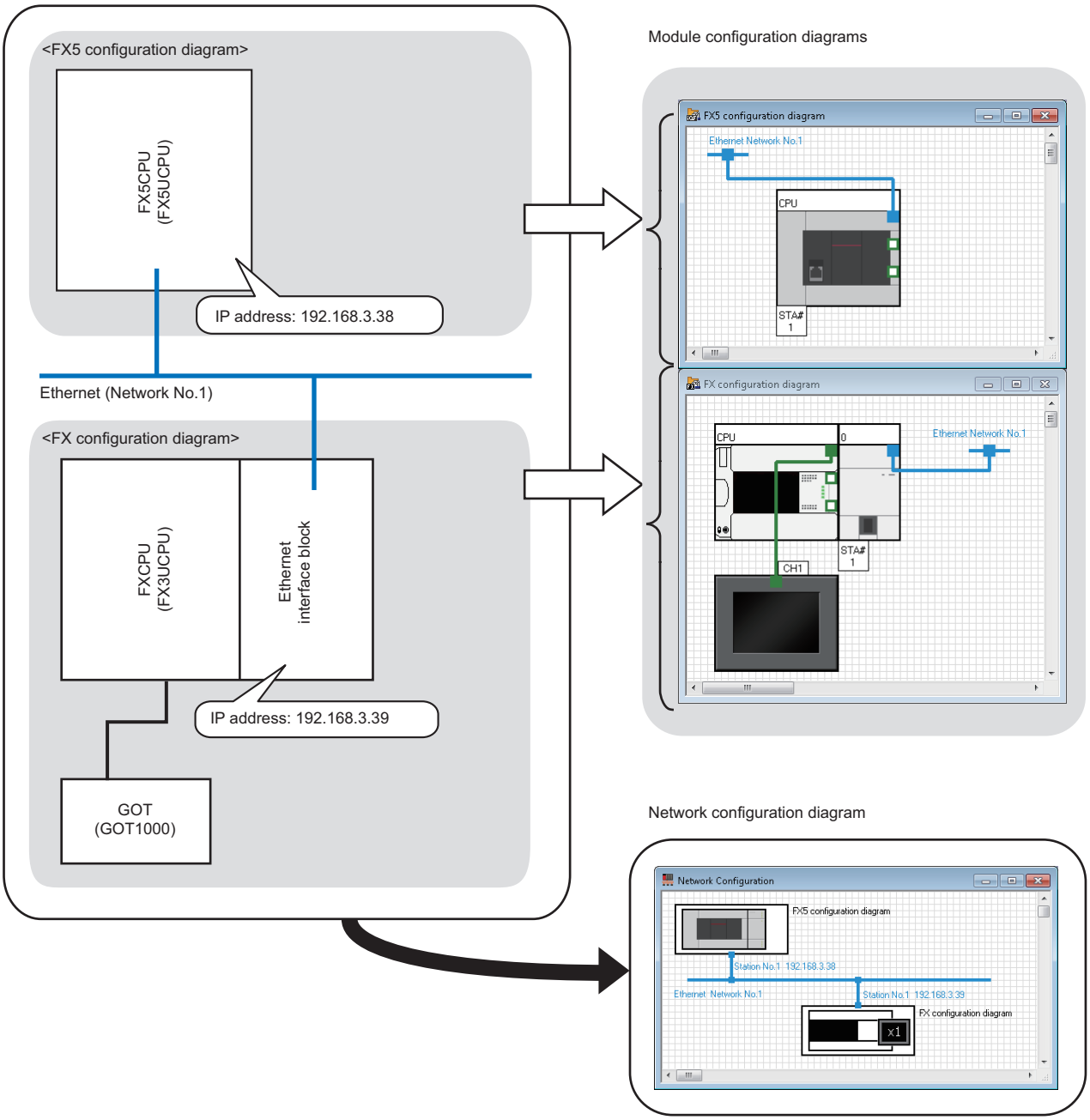
■Parameters of FX series special adapters

The parameters of special adapters can be set on the Input Detailed Configuration Information window.

The setting content is reflected to the parameter of a GX Works2 project by performing parameter reflection. For details on the parameter settings, refer to the following section.

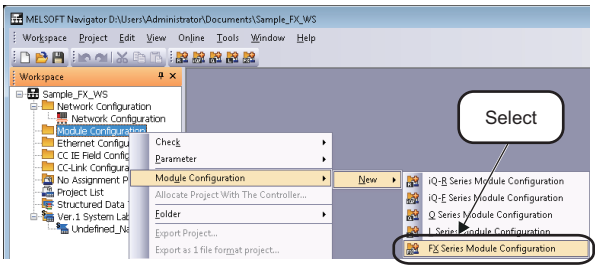
☞ Page 58 Setting/Reflecting/Importing Parameters

■System configuration to be created

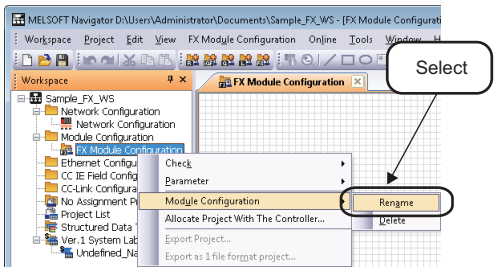


■Creating module configuration diagrams

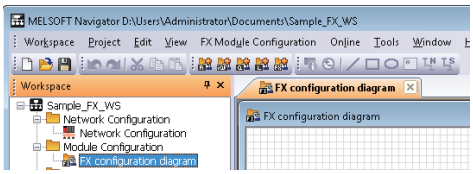
Operating procedure



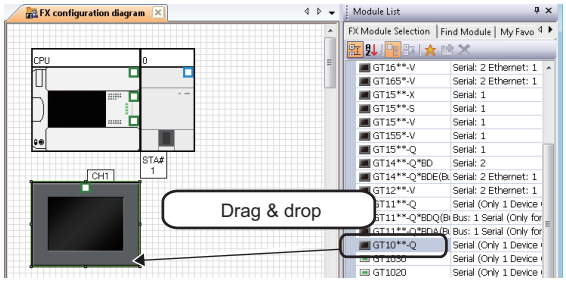
1. Right-click "Module Configuration" on the Workspace window, and select [Module Configuration] ⇨ [New] ⇨ [FX Series Module Configuration] in the shortcut menu.



2. Right-click "FX Module Configuration" on the Workspace window, and select [Module Configuration] ⇨ [Rename] in the shortcut menu.

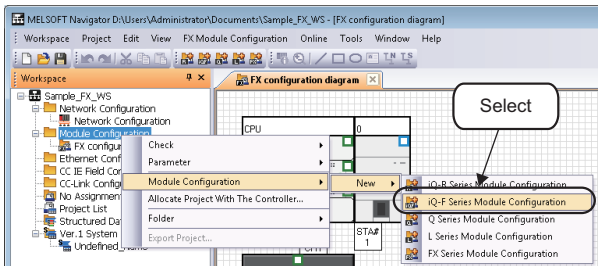


3. Enter 'FX module configuration diagram' to change the module configuration diagram name.

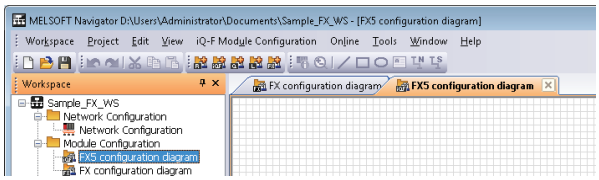


4. Select modules from the Module List window, and drag and drop them onto the Module Configuration window following the same procedure as Q series in the step 4 through step 9 .

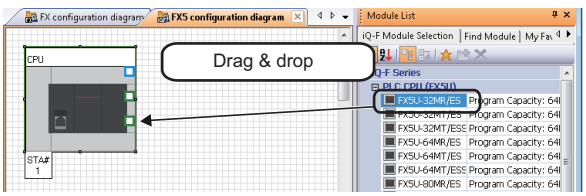
☞ Page 25 Creating module configuration diagrams



5. Select [Workspace] ⇨ [System Configuration] ⇨ [New] ⇨ [iQ-F Series Module Configuration] in the menu bar to create a new module configuration diagram, "iQ-F Module Configuration".



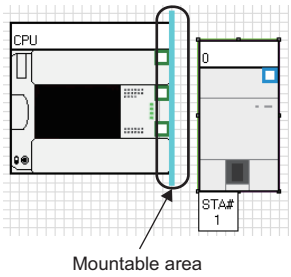
6. Change the module configuration diagram name to 'FX5 module configuration diagram' following the same procedure in the step 2 and step 3.



7. Select modules from the Module List window, and drag and drop them onto the Module Configuration window following the same procedure as Q series in the step 3 and step 4.

☞ Page 25 Creating module configuration diagrams

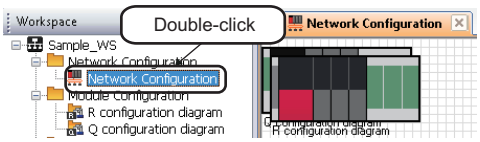
- When a module is dragged onto the Module Configuration window, the placeable areas are displayed in light blue as shown below.



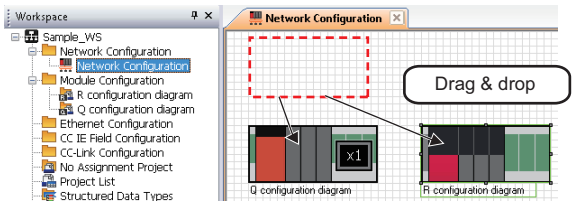
Creating network configuration diagrams

Create a network configuration diagram by placing and connecting the module configuration diagrams on the Network Configuration window.

Operating procedure

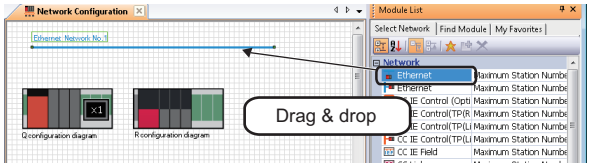


1. Double-click "Network Configuration" on the Workspace window.

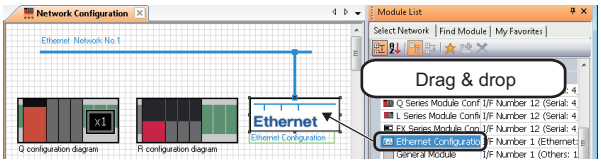


The Network Configuration window is opened.
All module configuration diagrams created on the module configuration diagrams are displayed.

2. Drag and drop the module configuration diagram to arbitrary positions.

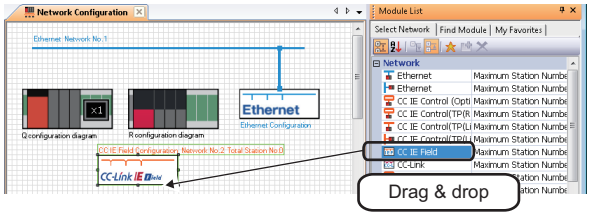


3. Select "Ethernet" in "Network" on the Module List window, and drag and drop it onto the Network Configuration window.



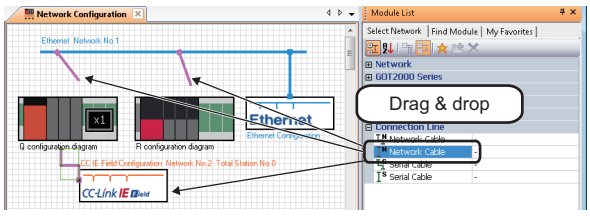
4. Select "Ethernet Configuration" in "Configuration Device" on the Module List window, and drag and drop it onto the Network Configuration window.

The Ethernet configuration is placed with Ethernet connected. Ethernet configuration is also added on the Workspace window.

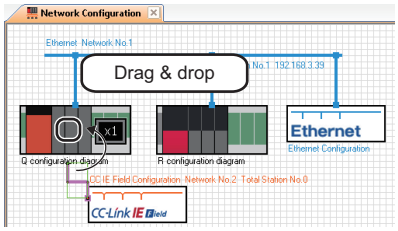


5. Select "CC IE Field" in "Network" on the Module List window, and drag and drop it onto the Network Configuration window.

CC IE Field configuration is added on the Workspace window.



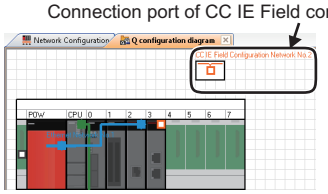
6. Select "Network Cable" from the Module List window, and drag and drop it onto the Network Configuration window.

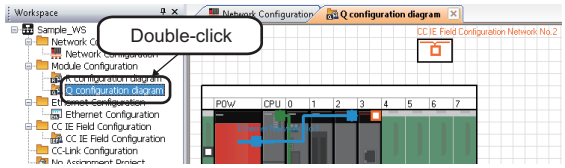


7. Drag and drop the edge of connection line to the connection port of the connection target module configuration diagram.

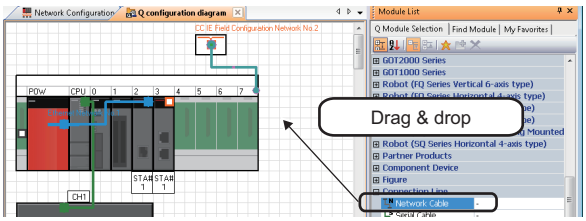
A connection port of CC IE Field configuration is added to the module configuration diagram that is connected to CC IE Field configuration.

Connection port of CC IE Field configuration



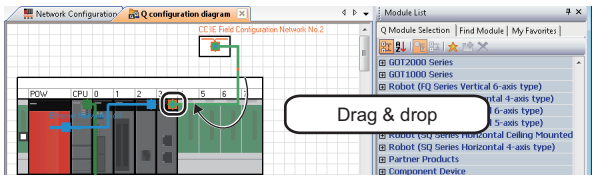


8. Double-click "Q configuration diagram" on the Workspace window.



The Module Configuration window is displayed.

9. Select "Network Cable" from the Module List window, and drag and drop it onto the Module Configuration window. Then connect it to the connection port of CC IE Field configuration.

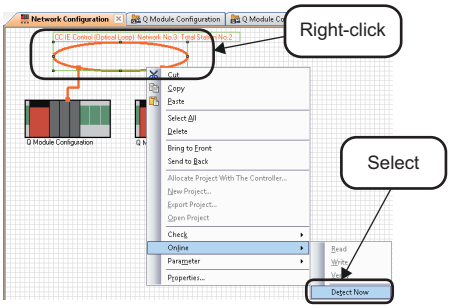


10. Drag and drop the edge of connection line to the connection port of the connection target CC-Link IE Field Network module.

■Detecting actual system configuration of CC-Link IE Controller Network automatically

The actual system configuration can be reflected to the target module configuration with the following operation.

- Right-click the CC-Link IE Controller Network on the Network Configuration Diagram, and select [Online] ⇨ [Detect Now] in the shortcut menu.
  For the automatic detection, a project which can be connected to the control station of CC-Link IE Controller Network is required.



■Network Configuration window

- A Module Configuration window/CC-Link Configuration window opens by double-clicking the module configuration diagram/CC-Link configuration on the Network Configuration window.
  For Ethernet/CC IE Field, each configuration window can be opened with the same operation as above.
  When opening Ethernet Configuration window, an IP address for Ethernet built-in CPU or Ethernet module which are handled as an own station is required to be set in advance. For the setting method, refer to the following section.
  (☞ Page 44 Creating Ethernet configurations)
- The whole system created on the Network Configuration window can be checked on the Bird's-eye window.

■Setting station No. in batch

Select [Network Configuration] ⇨ [Batch Setting All Network Station No.] in the menu bar to set the following network station No. in batch.

- Ethernet
- CC-Link IE Controller Network
- MELSECNET/H

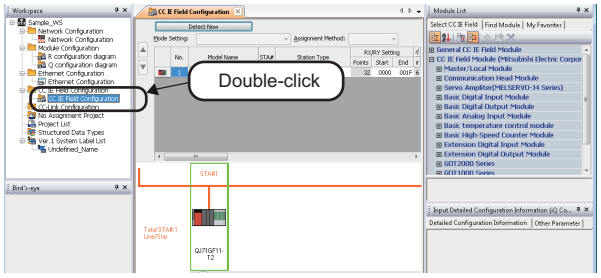
■Setting IP addresses in batch

Right-click Ethernet on the Network Configuration window and select [IP Address Batch Setting] in the shortcut menu to set IP addresses of Ethernet in batch.

Creating CC IE Field configurations

Create a configuration diagram by placing modules on the CC IE Field Configuration window.

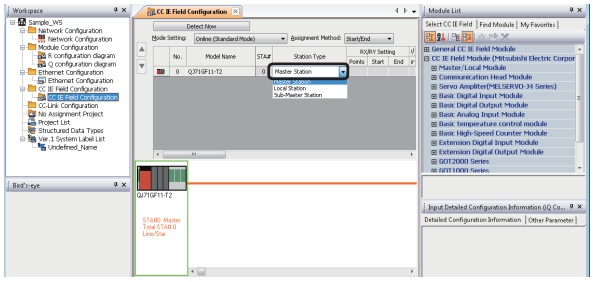
Operating procedure



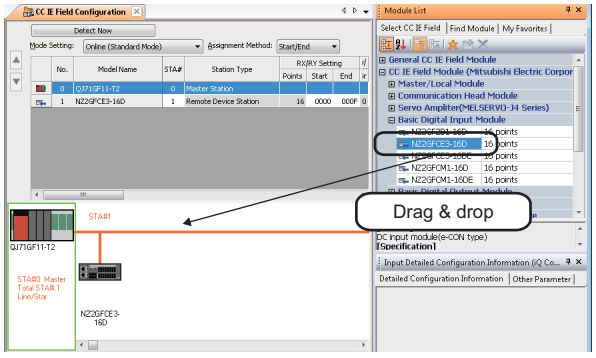
1. Double-click "CC IE Field Configuration" on the Workspace window.

CC IE Field configuration diagram[*1] is displayed.

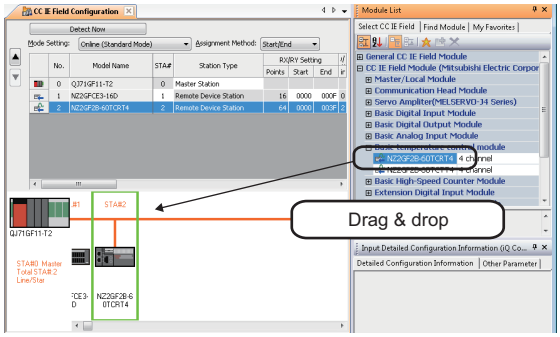
Change the name as necessary.



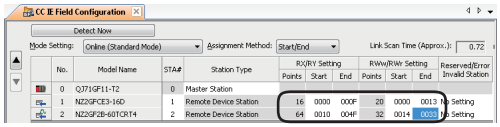
2. Change the "Station Type" to "Master Station" on the CC IE Field Configuration window.



3. Select "NZ2GFCE3-16D"[*1] from the Module List window, and drag and drop it onto the CC IE Field Configuration window.



4. Select modules to be connected from the Module List window, and drag and drop them onto the CC IE Field Configuration window following the same procedure in the step 3.



5. Set "RX/RY Setting" and "RWw/RWr Setting" of each module.

Set the other items as necessary.

*1 For details of the parameter processing of slave stations, refer to the following manual.
GX Works2 Version 1 Operating Manual (Common)

■Detecting actual system configuration

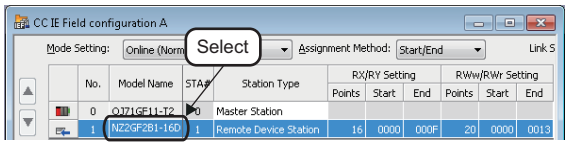
The actual system configuration can be reflected to the CC IE Field Configuration window by performing one of the following operations.

- Click the [Detect Now] button on the CC IE Field Configuration window.
- Select [CC IE Field Configuration] ⇨ [Online] ⇨ [Detect Now] in the menu.

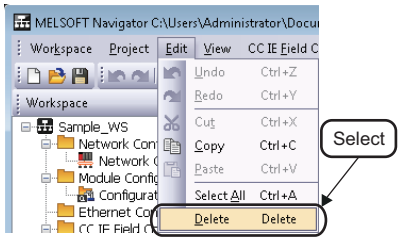
For details, refer to the following manual.

iQ Sensor Solution Reference Manual

■Deleting slave stations of CC IE Field



1. Select the row of the slave station to be deleted.
(Multiple rows can be selected.)



2. Select [Edit] ⇨ [Delete] in the menu bar.

Precautions

Check that the CC-Link IE Field modules on the module configuration diagram are connected to the connection ports of CC IE Field configuration.
If not, the CC-Link IE Field modules are not displayed on the CC IE Field Configuration window.
When a master/local module or head module is added on the CC IE Field Configuration window, the module configuration diagram for the added module is added.

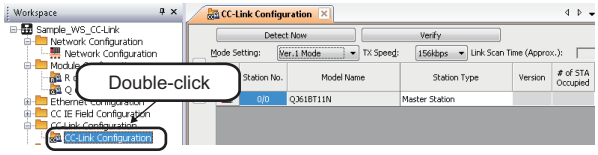
Creating CC-Link configurations

Create a configuration diagram by placing modules on the CC-Link Configuration window.

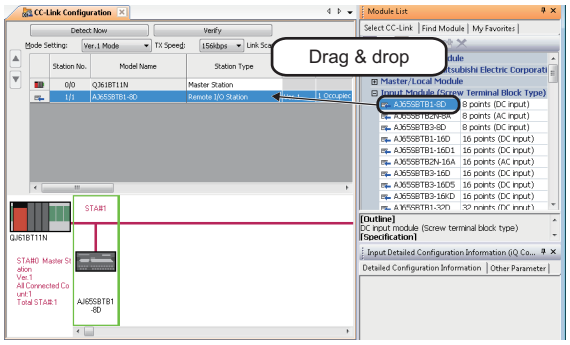
When creating CC-Link configuration, add a CC-Link configuration on the Network Configuration Diagram and connect it to CC-Link configuration on the module configuration diagram in advance.

☞ Page 37 Creating network configuration diagrams

Operating procedure



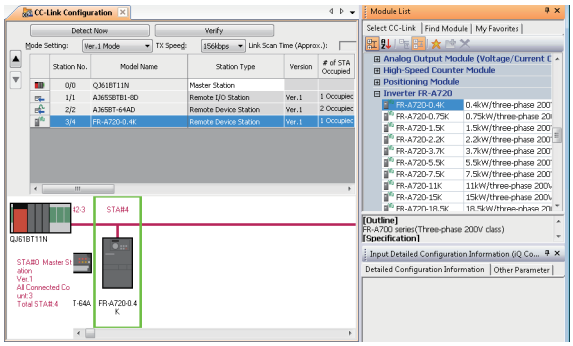
1. Double-click "CC-Link Configuration" on the Workspace window.



The CC-Link Configuration window is opened.

2. Select "AJ65SBTB1-8D" from the Module List window, and drag and drop it onto the CC-Link Configuration window.

CC-Link configuration is added on the Module Configuration window.



3. Select modules to be connected from the Module List window, and drag and drop them onto the CC-Link Configuration window following the same procedure in the step 2.

■Detecting actual system configuration

The actual system configuration can be reflected to the CC-Link Configuration window by performing one of the following operations.

- Click the [Detect Now] button on the CC-Link Configuration window.
- Select [CC-Link Configuration] ⇨ [Online] ⇨ [Detect Now] in the menu.

For details, refer to the following manual.

📖 iQ Sensor Solution Reference Manual

■Verifying CC-Link configuration against the actual system configuration

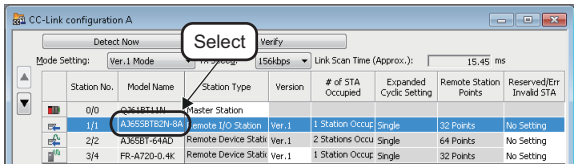
The CC-Link configuration can be verified against the actual system configuration by performing one of the following operations.

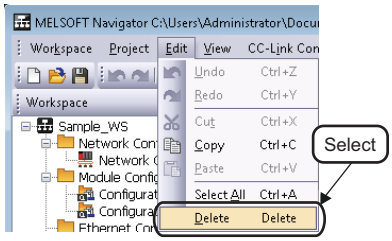
- Click the [Verify] button on the CC-Link Configuration window.
- Select [CC-Link Configuration] ⇨ [Online] ⇨ [Verification of the Configuration with the Connected Module] in the menu.

For details, refer to the following manual.

📖 iQ Sensor Solution Reference Manual

■Deleting CC-Link modules





1. Select "Station No." or "Model Name" of the CC-Link module to be deleted.

2. Select [Edit] ⇨ [Delete] in the menu bar.

Precautions

Check that the CC-Link modules on the module configuration diagram are connected to the connection ports of CC-Link configuration.

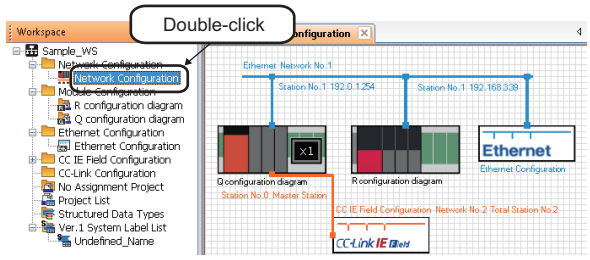
If not, the CC-Link modules are not displayed on the CC-Link Configuration window.

When a master/local module is added on the CC-Link Configuration window, the module configuration diagram for the added module is added.

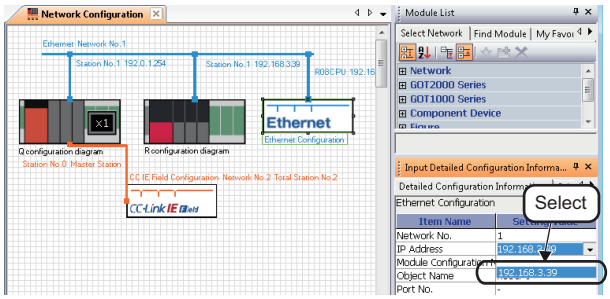
Creating Ethernet configurations

Create a configuration diagram by placing modules on the Ethernet Configuration window.

Operating procedure



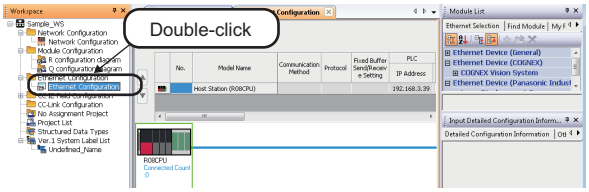
1. Double-click "Network Configuration" on the Workspace window.



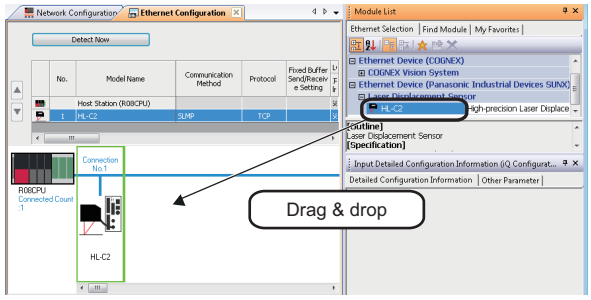
The Network Configuration window is opened.

2. Select the Ethernet configuration and select the IP address of the Ethernet built-in CPU or Ethernet module which is handled as an own station on the Input Detailed Configuration Information window.

"Module Configuration Name", "Object Name", and "Port No." are automatically displayed.

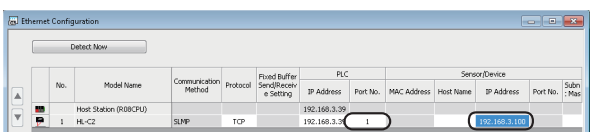


3. Double-click "Ethernet Configuration" on the Workspace window.



The Ethernet Configuration window is opened.

4. Select "HL-C2"*1 from the Module List window, and drag and drop it onto the Ethernet Configuration window.



5. Set "Port No." in "PLC" and "IP Address" in "Sensor/Device".

Set the other items as necessary.

*1 For details on the parameter processing of Ethernet devices, refer to the following manual.
iQ Sensor Solution Reference Manual

■Detecting actual system configuration

The actual system configuration can be reflected to the Ethernet Configuration window by performing one of the following operations.

- Click the [Detect Now] button on the Ethernet Configuration window.
- Select [Ethernet Configuration] ⇨ [Online] ⇨ [Detect Now] in the menu.

For details on the automatic detection of the connected Ethernet devices, refer to the following manual.

📖 iQ Sensor Solution Reference Manual

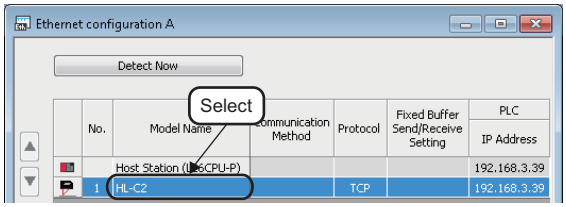
■Reflecting communication settings of Ethernet devices

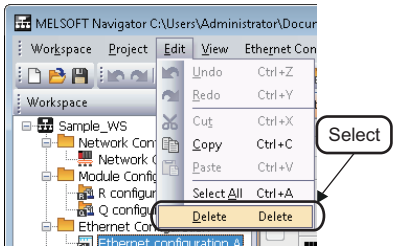
Select [Ethernet Configuration] ⇨ [Online] ⇨ [Communication Setting Reflection of Ethernet Device] to reflect the communication settings of Ethernet devices.

For details, refer to the following manual.

📖 iQ Sensor Solution Reference Manual

■Deleting Ethernet devices





1. Select the row of the Ethernet device to be deleted. (Multiple rows can be selected.)

2. Select [Edit] ⇨ [Delete] in the menu bar.

Precautions

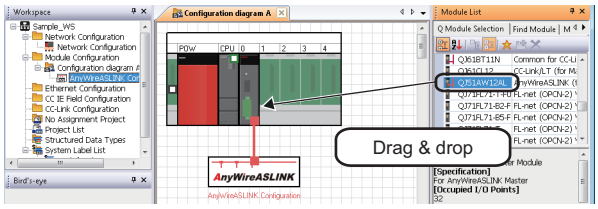
Check that the Ethernet modules on the module configuration diagram are connected to the connection ports of Ethernet configuration.

If not, the Ethernet modules are not displayed on the Ethernet Configuration window.

Creating AnyWireASLINK configurations

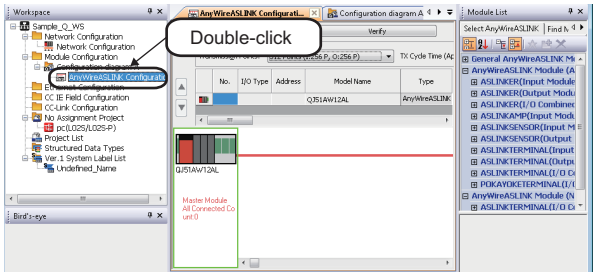
Create a configuration diagram by placing modules on the AnyWireASLINK Configuration window.

Operating procedure



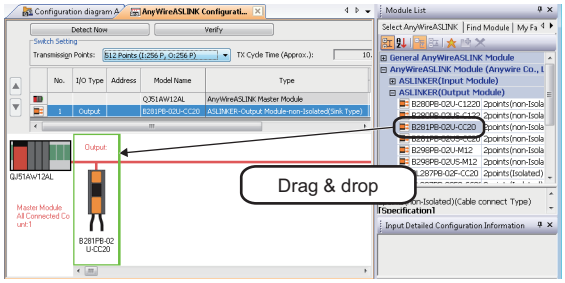
1. Select "QJ51AW12AL" (AnyWireASLINK master module) from the Module List window, and drag and drop it onto the Module Configuration window.

The AnyWireASLINK configuration diagram is created.



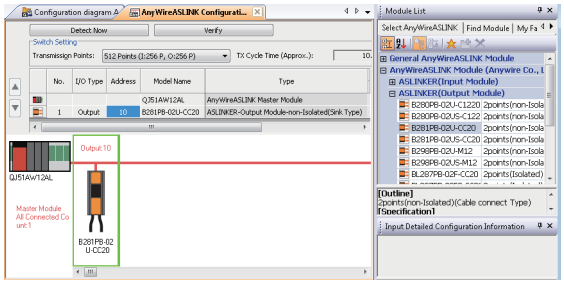
2. Double-click "AnyWireASLINK Configuration" on the Workspace window.

The AnyWireASLINK Configuration window is opened.



3. Select "B281PB-02U-CC20" (AnyWireASLINK slave module) from the Module List window, and drag and drop it onto the AnyWireASLINK Configuration window.

The slave module is added on the AnyWireASLINK Configuration window.



4. Set the address to the added slave module*1 in "Address" on the AnyWireASLINK Configuration window.

For the general-purpose AnyWireASLINK module, set the I/O type, address, and number of occupied I/O points.

*1 The address of the slave module can be set automatically.
For details, refer to the following manual.
GX Works2 Version 1 Operating Manual (Intelligent Function Module)

■Detecting actual system configuration

The actual system configuration can be reflected to the AnyWireASLINK Configuration window by performing one of the following operations.

- Click the [Detect Now] button on the AnyWireASLINK Configuration window.
- Select [AnyWireASLINK Configuration] ⇨ [Online] ⇨ [Detect Now] in the menu.

For details, refer to the following manual.

📖 iQ Sensor Solution Reference Manual

■Verifying AnyWireASLINK configuration against the actual system configuration

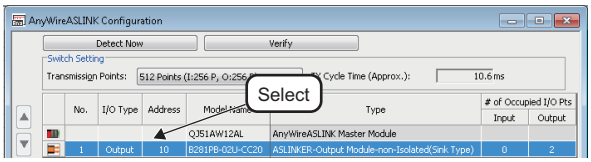
The AnyWireASLINK configuration can be verified against the actual system configuration by performing one of the following operations.

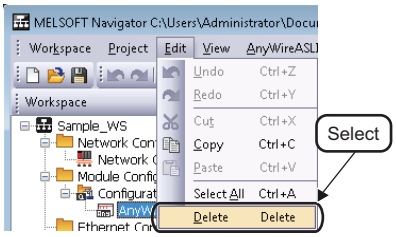
- Click the [Verify] button on the AnyWireASLINK Configuration window.
- Select [AnyWireASLINK Configuration] ⇨ [Online] ⇨ [Verification of the Configuration with the Connected Module] in the menu.

For details, refer to the following manual.

📖 iQ Sensor Solution Reference Manual

■Deleting AnyWireASLINK slave modules





1. Select the row of the AnyWireASLINK slave module to be deleted. (Multiple rows can be selected.)

2. Select [Edit] ⇨ [Delete] in the menu bar.

3.5 Creating Projects

Create a project data (programmable controller projects, motion controller projects, GOT projects).

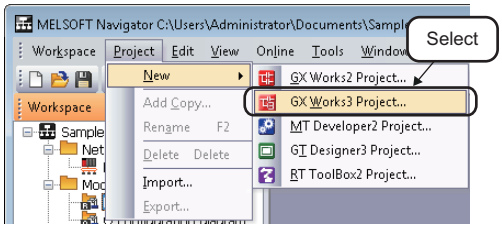
Creating new projects

Programmable controller projects

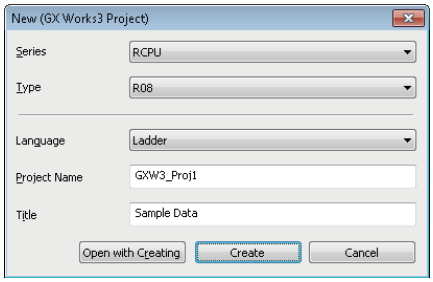
■GX Works3 projects

Create GX Works3 project for MELSEC iQ-R/MELSEC iQ-F series programmable controller CPU.

Operating procedure



1. Select [Project] ⇨ [New] ⇨ [GX Works3 Project] in the menu bar.



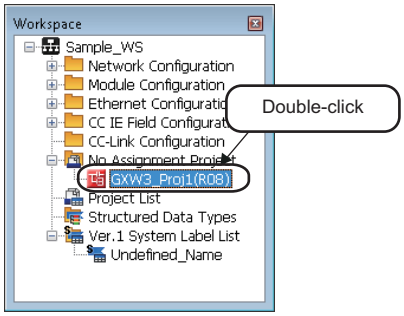
The "New (GX Works3 Project)" screen is displayed.

2. Set "Series", "Type", "Language", "Project Name", and "Title" for the new project.

After setting the items, click the [Create] button.

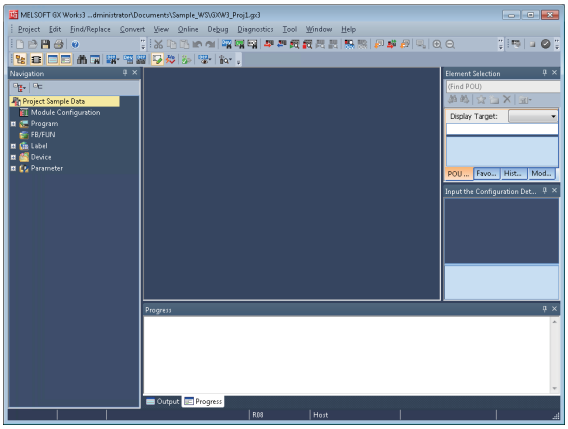
Setting content (sample)

- Series: RCPU
- Type: R08
- Language: Ladder
- Project Name: GXW3_Proj1
- Title (option): Sample Data



The new project is created.

3. Double-click the created project on the Workspace window.



The GX Works3 project is started.
For the method of editing GX Works3 projects, refer to the following manual.
GX Works3 Operating Manual

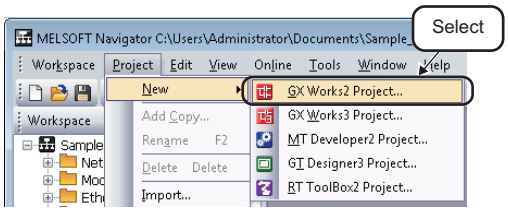
Point

When RnSFCPU is selected in "Type", the user registration is required since a user information for the User Authentication function is needed.
Enter each items in the "Add New User" screen, and click the [OK] button.

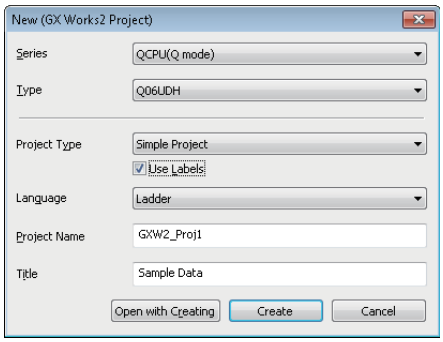
■GX Works2 project

Create GX Works2 projects for Q series/L series/FX series programmable controller CPU.

Operating procedure



1. Select [Project] ⇨ [New] ⇨ [GX Works2 Project] in the menu bar.

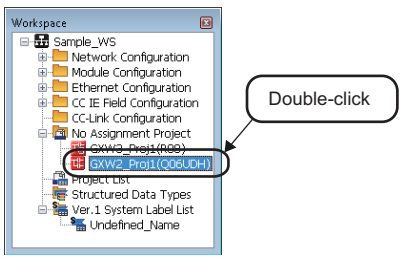


The "New (GX Works2 Project)" screen is displayed.

2. Set "Series", "Type", "Project Type", "Language", "Project Name", and "Title" for the new project.
After setting the items, click the [Create] button.

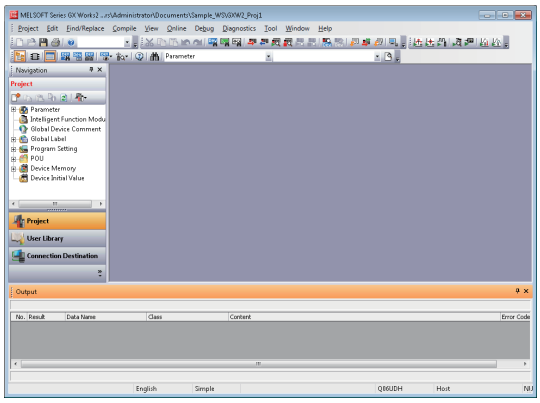
Setting content (sample)

- Series: QCPU (Q mode)
- Type: Q06UDH
- Project Type: Simple Project
- Use Labels: Select
- Language: Ladder
- Project Name: GXW2_Proj1
- Title (option): Sample Data



The new project is created.

3. Double-click the created project on the Workspace window.



The GX Works2 project is started.

For the method of editing GX Works2 projects, refer to the following manuals.

📖 GX Works2 Version 1 Operating Manual (Common)

📖 GX Works2 Version 1 Operating Manual (Simple Project)

📖 GX Works2 Version 1 Operating Manual (Structured Project)

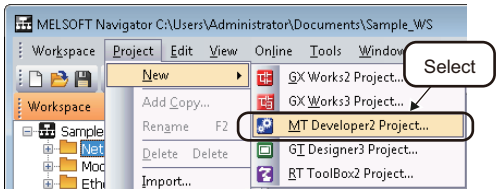
📖 GX Works2 Beginner's Manual (Simple Project)

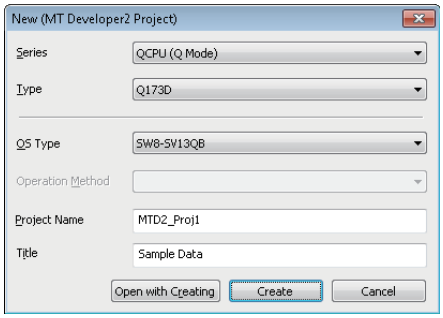
📖 GX Works2 Beginner's Manual (Structured Project)

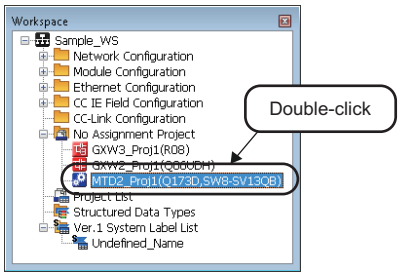
Motion controller projects

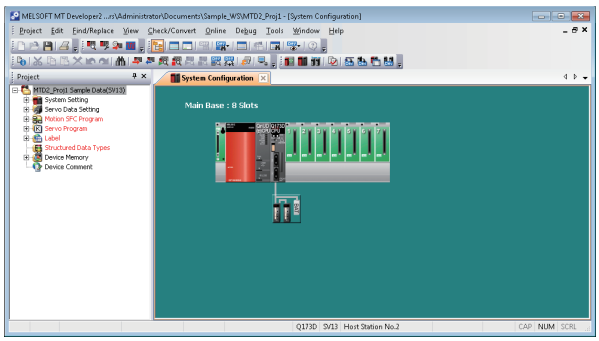
Create MT Developer2 projects for motion controller.

Operating procedure









1. Select [Project] ⇨ [New] ⇨ [MT Developer2 Project] in the menu bar.

The "New (MT Developer2 Project)" screen is displayed.

2. Set "Series", "Type", "OS Type", "Project Name", and "Title" for the new project.
After setting the items, click the [Create] button.

Setting content (sample)

- Series: QCPU (Q mode)
- Type: Q173D
- OS Type: SW8-SV13QB
- Project Name: MTD2_Proj1
- Title (option): Sample Data

The new project is created.

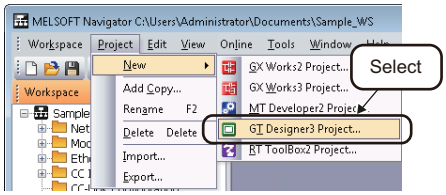
3. Double-click the created project on the Workspace window.

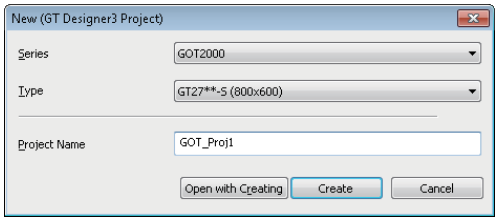
The MT Developer2 project is started.
For the method of editing the MT Developer2 projects, refer to the following function.
📖 HELP function of MT Developer2

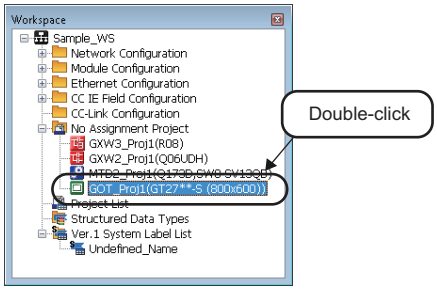
GOT projects

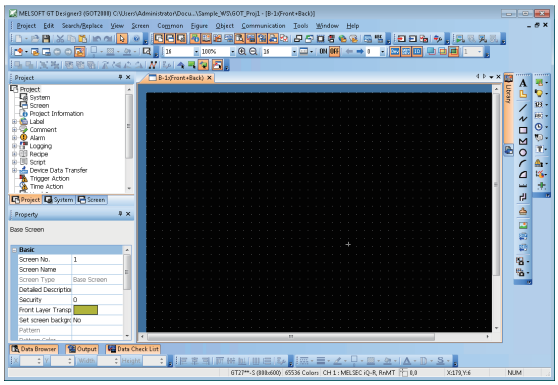
Create GT Designer3 projects for GOT.

Operating procedure









1. Select [Project] ⇨ [New] ⇨ [GT Designer3 Project] in the menu bar.

The "New (GT Designer3 Project)" screen is displayed.

2. Set "Series", "Type", and "Project Name".
After setting the items, click the [Create] button.

Setting content (sample)

- Series: GOT2000
- Type: GT27**-S (800× 600)
- Project Name: GOT_Proj1

The new project is created.

3. Double-click the created project on the Workspace window.

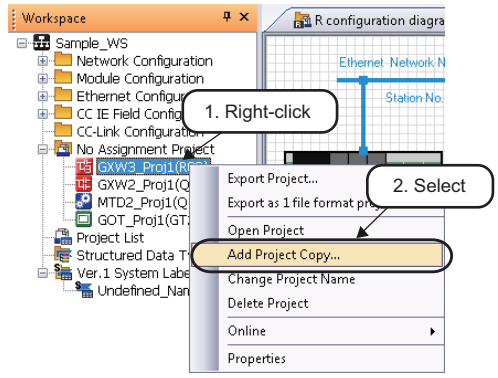
The GT Designer3 project is started.
For the method of editing the GT Designer3 projects, refer to the following manuals.
📖 GT Designer3 Version 1 Screen Design Manual (Fundamentals)
📖 GT Designer3 Version 1 Screen Design Manual (Functions)
📖 GT Designer3 (GOT2000) Screen Design Manual

Operating project

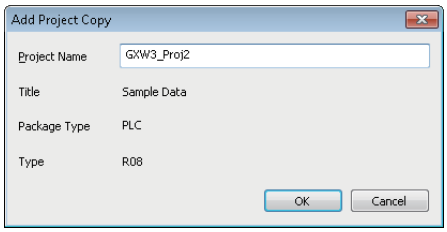
Copying projects

Copy a project created in the workspace to create a new project.

Operating procedure



1. Right-click the project name on the Workspace window, and select [Add Project Copy] in the shortcut menu.

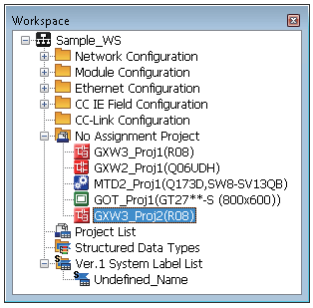


The "Add Project Copy" screen is displayed.

2. Enter the project name of the copied project, and click the [OK] button.

Setting content (sample)

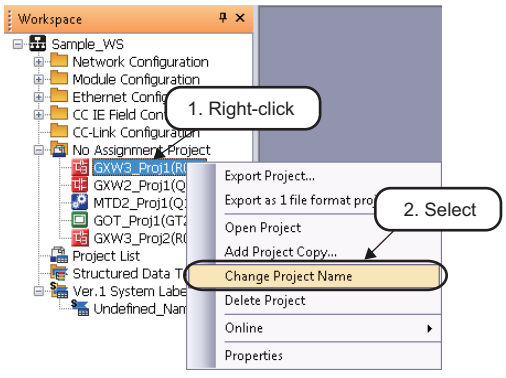
- Project Name: GXW3_Proj2



The copied project is displayed in the Workspace window.

Changing project names

Change a project name of an existing project.

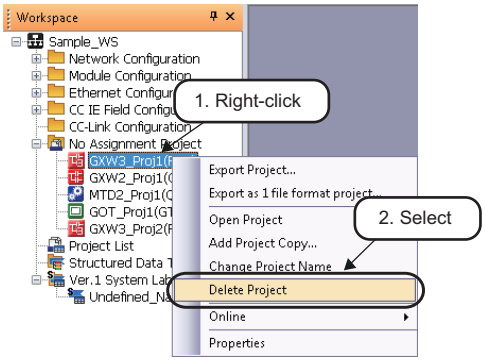


Right-click the project name on the Workspace window, and select [Change Project Name] in the shortcut menu to change the project name.

Deleting projects

Delete a project.

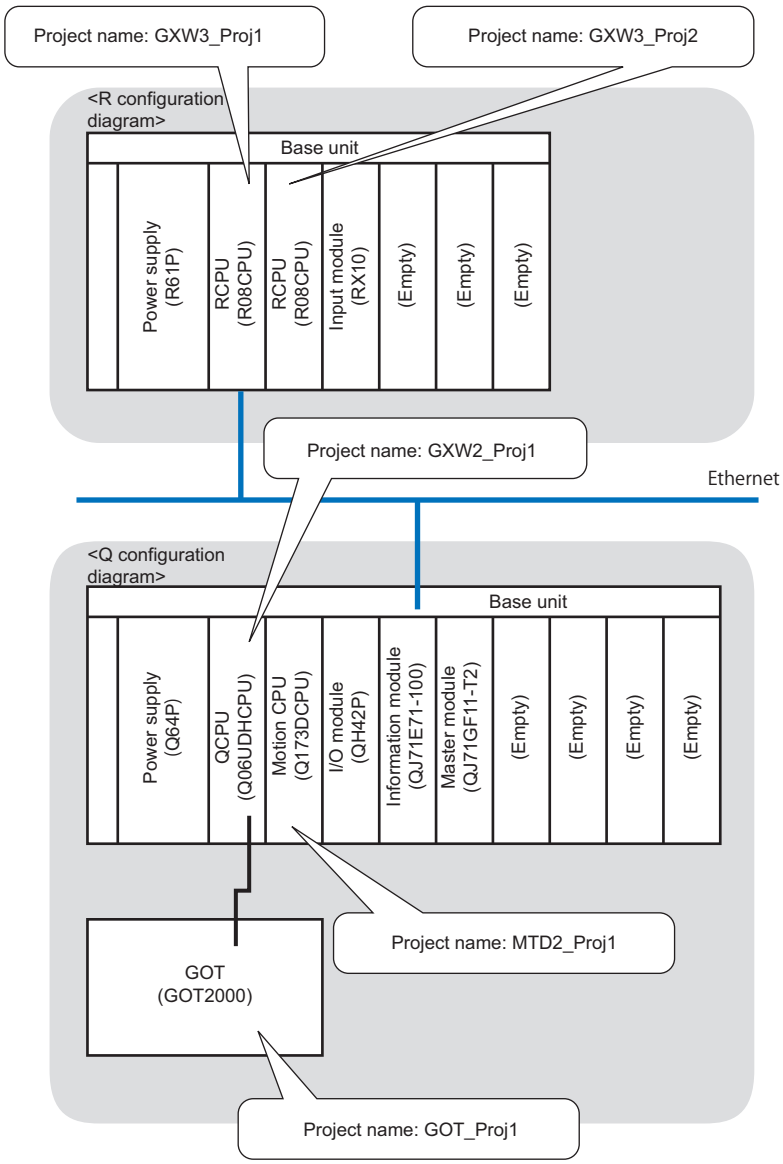
Once a project is deleted, it cannot be restored again.



Right-click the project name on the Workspace window, and select [Delete Project] in the shortcut menu to delete the project.

Allocating projects to controllers

This section explains how to allocate projects in the workspace to controllers on the Module Configuration windows.
Allocate projects on the controller of the following module configuration diagram.



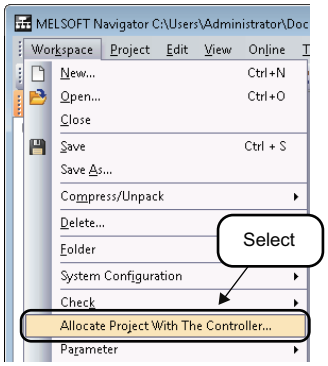
Precautions

A project cannot be allocated if the name of the placed controller and type of the created project does not match.
Check the module name of the respective controllers, and allocate projects.

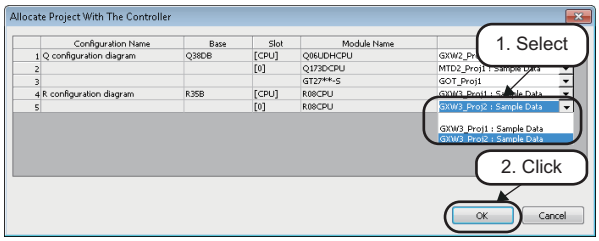
Operating procedure

■Batch allocation

Allocate projects in the workspace to all controllers on the Module Configuration windows.



1. Select [Workspace] ⇨ [Allocate Project With The Controller] in the menu bar.

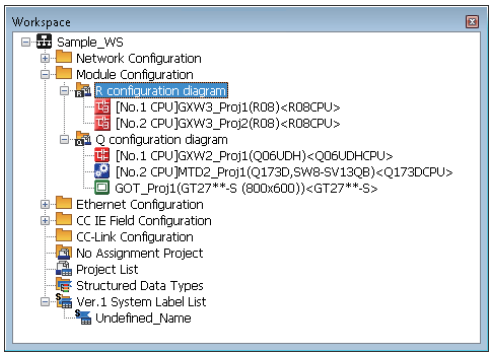


The "Allocate Project With The Controller" screen is displayed.

2. Select a project name to be allocated for all controllers, and click the [OK] button.

Setting content (sample)

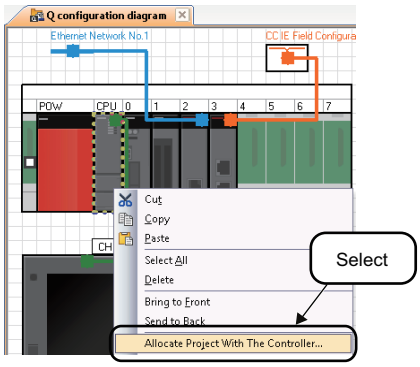
Module Name	Project Name
R08CPU	GXW3_Proj1: Sample Data
R08CPU	GXW3_Proj2: Sample Data
Q06UDHCPU	GXW2_Proj1: Sample Data
Q173DCPU	MTD2_Proj1: Sample Data
GT27**-S	GOT_Proj1



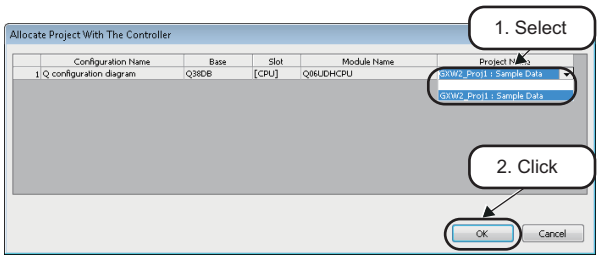
The allocated projects are displayed under the Module Configuration folder on the Workspace window.

■Individual allocation

Allocate a project in the workspace to the controller selected on the Module Configuration window.



1. Right-click the controller on the Module Configuration window, and select [Allocate Project With The Controller] in the shortcut menu.

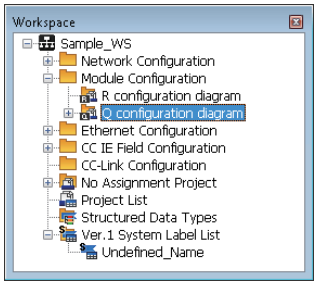


The "Allocate Project With The Controller" screen is displayed.

2. Select a project name for the selected controller, and click the [OK] button.

Setting content (sample)

Module Name	Project Name
Q06UDHCPU	GXW2_Proj1: Sample Data



The allocated project is displayed under the Module Configuration folder on the Workspace window.

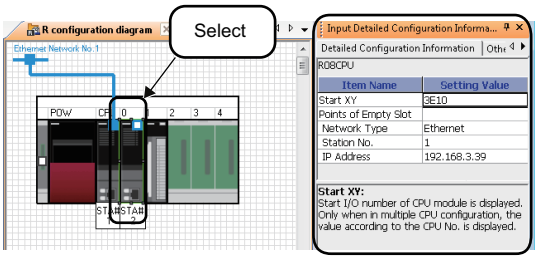
3.6 Setting/Reflecting/Importing Parameters

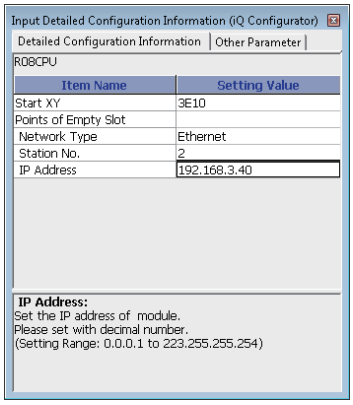
Set the I/O assignment, network parameters, and multiple CPU parameters and reflect them to each project.
For MELSEC iQ-R series/MELSEC iQ-F series, the parameters configured in each project can be imported to MELSOFT Navigator. For the import method, refer to the following section.
☞ Page 70 Importing parameters configured in each project

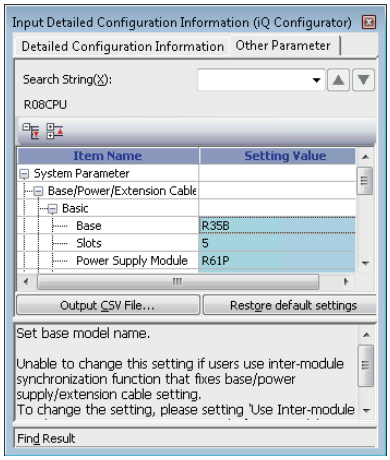
Configuring parameters on the Input Detailed Configuration Information window

Configure the parameters such as start input/output number of each controller and network parameters without opening each parameter setting screen.

Operating procedure







1. Select a module on "R configuration diagram".

The parameters are displayed on the Input Detailed Configuration Information window.

2. Configure the parameters in the [Detailed Configuration Information] tab on the Input Detailed Configuration Information window.

"Station No." and "IP Address" are set on the screen shown on the left as an example.
Set "Station No." and "IP Address" of QJ71E71-100 on "Q configuration diagram" as well.
For details of parameter configurations, refer to the user's manual of each module.

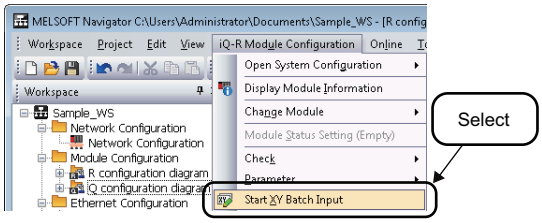
3. For MELSEC iQ-R series, configure the detailed parameters in the [Other Parameter] tab on the Input Detailed Configuration Information window.

For details of parameter configurations, refer to the user's manual of each module.
For the parameters which cannot be configured on the Input Detailed Configuration Information window, use each engineering software (GX Works3, GX Works2, MT Developer2, GT Designer3).

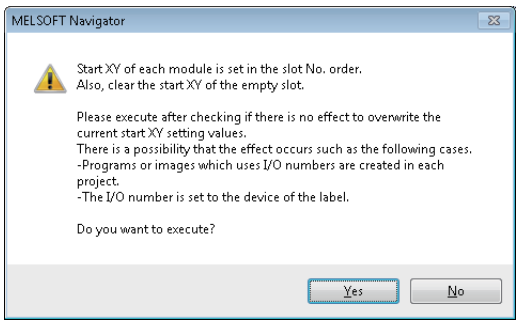
■Setting start I/O in batch

Assign start XY consecutively to modules or empty slots in the order of slot number.

Reconfiguration of the start XY to each module is not required when replacing modules or changing number of points.

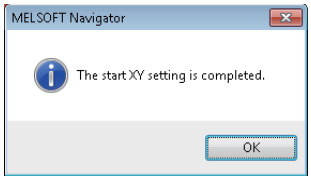


1. Select [Q Module Configuration]/[iQ-R Module Configuration] ⇨ [Start XY Batch Input] in the menu bar.


MELSOFT Navigator
Start XY of each module is set in the slot No. order.
Also, clear the start XY of the empty slot.
Please execute after checking if there is no effect to overwrite the current start XY setting values.
There is a possibility that the effect occurs such as the following cases.
-Programs or images which uses I/O numbers are created in each project.
-The I/O number is set to the device of the label.
Do you want to execute?
Yes
No

The message shown on the left is displayed.

2. Read the message and click the [Yes] button.

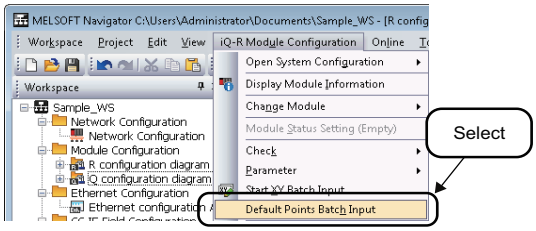


The message on the left is displayed, and start XY is set.

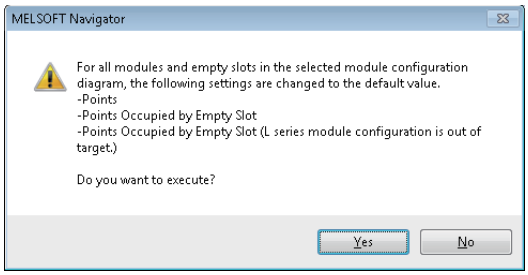
3. Click the [OK] button.

■Setting default points in batch

Set default to all points of modules or empty slots on the base unit.

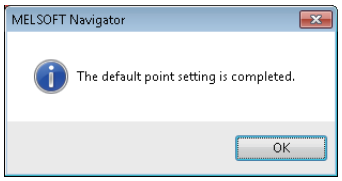


1. Select [Q Module Configuration]/[iQ-R Module Configuration] ⇨ [Default Points Batch Input] in the menu bar.


MELSOFT Navigator
For all modules and empty slots in the selected module configuration diagram, the following settings are changed to the default value.
-Points
-Points Occupied by Empty Slot
-Points Occupied by Empty Slot (L series module configuration is out of target.)
Do you want to execute?
Yes
No

The message shown on the left is displayed.

2. Read the message and click the [Yes] button.



The message shown on the left is displayed, and default points are set.

3. Click the [OK] button.

■Setting station No. or IP addresses in batch

Station No. or IP address for the network parameter can be set in batch in the Network Configuration window.

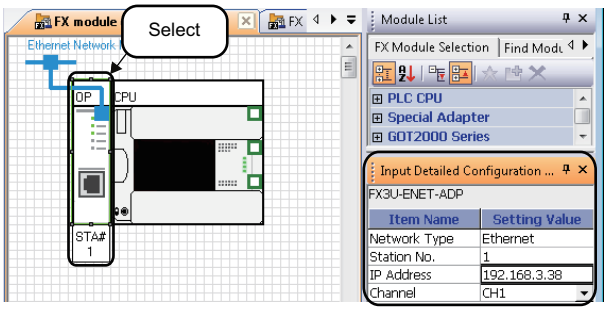
For the setting method and target networks, refer to the following section.

☞ Page 37 Creating network configuration diagrams

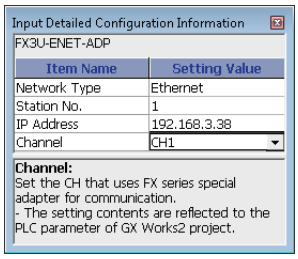
Setting parameters of FX series special adapter

The parameters of special adapters can be set without opening the parameter setting screen of GX Works2 project. The following shows an example when using FX3U-ENET-ADP.

Operating procedure



1. Click "FX3U-ENET-ADP" on "FX module configuration diagramA".

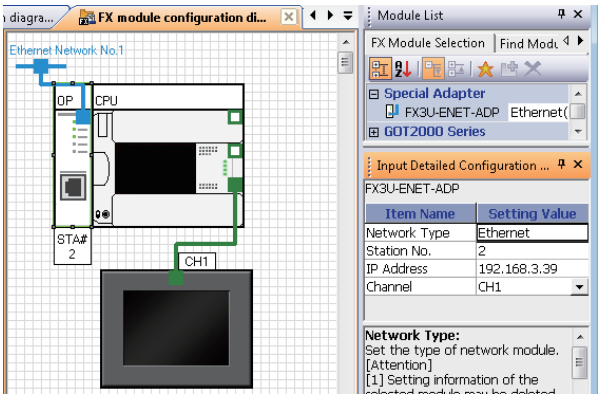


The parameters are displayed on the Input Detailed Configuration Information window.

2. Set the parameters on the Input Detailed Configuration Information window.

Setting content (sample)

- Station No.:1
- IP address: 192.138.3.38
- Channel: CH1



3. Set the parameters of "FX module configuration diagramB" following the same procedure in the step 1 and step 2.

Setting content (sample)

- Station No.:2
- IP address: 192.168.3.39
- Channel: CH1

For the reflection method for the set parameters to a GX Works2 project, refer to the following section.

☞ Page 66 Multiple CPU parameters for Q series

Precautions

When "Channel" has already been set to [PLC System (2)] tab of the "PLC parameter" screen in the target program, the settings of [PLC System (2)] tab will be initialized.

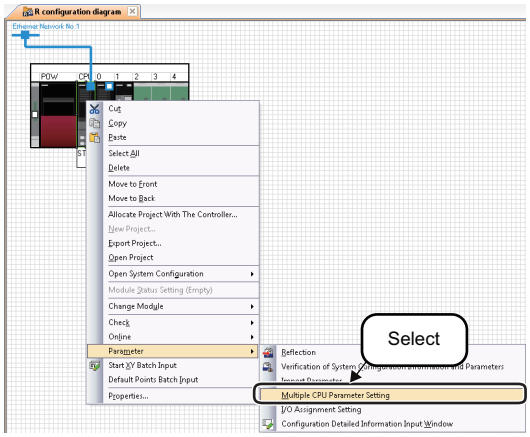
To retain the settings in GX Works2 project, backup the project before reflecting the parameters.

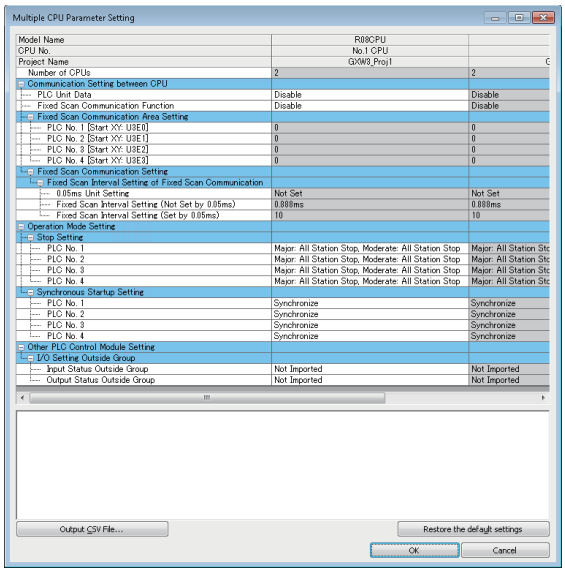
Configuring multiple CPU parameters

Multiple CPU parameters for MELSEC iQ-R series

For MELSEC iQ-R series, configure the multiple CPU parameters in batch using MELSOFT Navigator. The configured multiple CPU parameters on each CPU can be reflected to other CPUs automatically.

Operating procedure





1. Right-click the controller on the Module Configuration window, and select [Parameter] ⇨ [Multiple CPU Parameter Setting] in the shortcut menu.

The "Multiple CPU Parameter Setting" screen is displayed.

2. Set the multiple CPU parameters.

For the configuration of multiple CPU parameters, refer to the manual for each CPU module or motion controller.

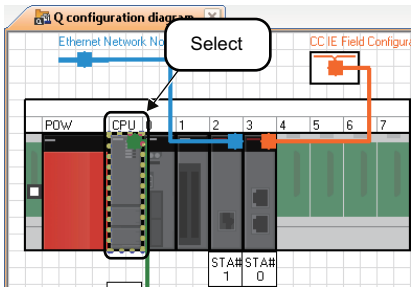
Multiple CPU parameters for Q series

For Q series, configure the multiple CPU parameters by activating the multiple CPU settings of each controller project from MELSOFT Navigator. Set the parameters on CPU No.1, and the utilize them for CPU No.2.

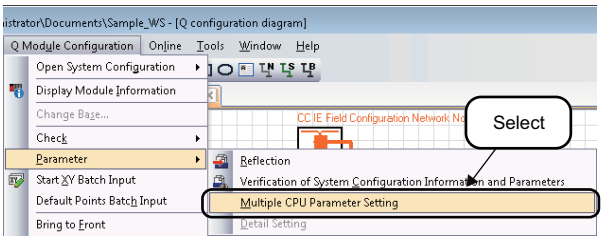
The following is an example when utilizing parameters of programmable controller project (GX Works2) for a motion controller project.

When setting parameters on a motion controller project, follow the same procedure as shown below.

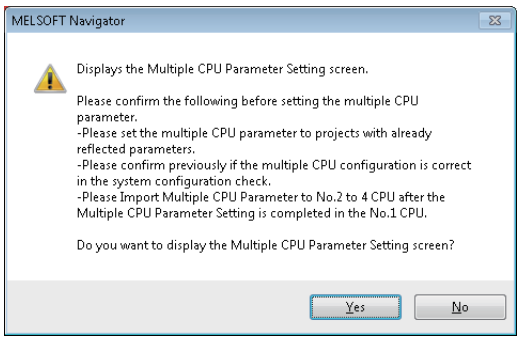
Operating procedure



1. Select the CPU No.1 controller on the Module Configuration window.

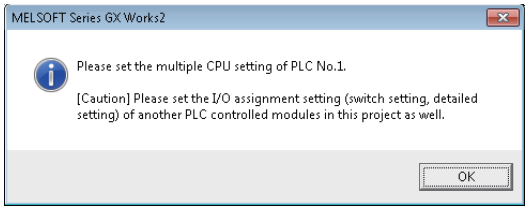


2. Select [Q Module Configuration] ⇨ [Parameter] ⇨ [Multiple CPU Parameter Setting] in the menu bar.


MELSOFT Navigator
Displays the Multiple CPU Parameter Setting screen.
Please confirm the following before setting the multiple CPU parameter.
-Please set the multiple CPU parameter to projects with already reflected parameters.
-Please confirm previously if the multiple CPU configuration is correct in the system configuration check.
-Please Import Multiple CPU Parameter to No.2 to 4 CPU after the Multiple CPU Parameter Setting is completed in the No.1 CPU.
Do you want to display the Multiple CPU Parameter Setting screen?
Yes
No

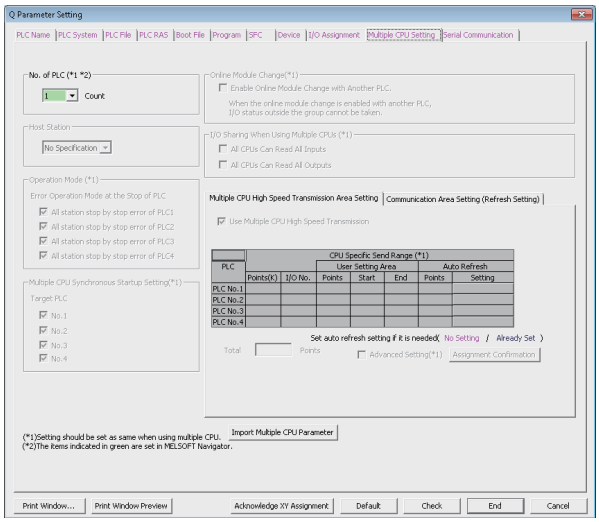
The message shown on the left is displayed.

3. Read the message and click the [Yes] button.

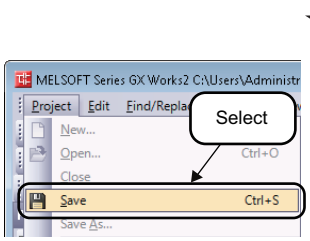

MELSOFT Series GX Works2
Please set the multiple CPU setting of PLC No.1.
[Caution] Please set the I/O assignment setting (switch setting, detailed setting) of another PLC controlled modules in this project as well.
OK

GX Works2 is activated and the message shown on the left is displayed.

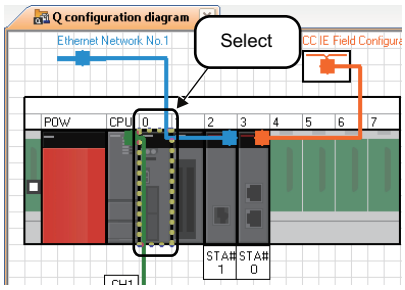
4. Read the message and click the [OK] button.



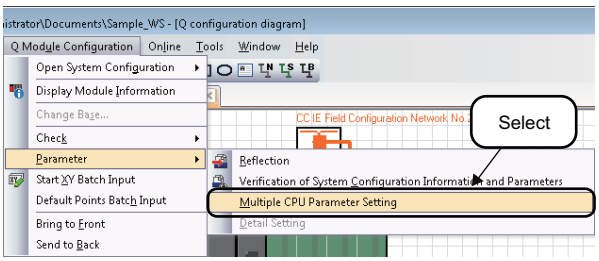
The "Q Parameter Setting" screen is displayed.
For the method of setting multiple CPU parameters, refer to the following manual and function.
📖 QCPU User's Manual (Multiple CPU System)
📖 HELP function of MT Developer2



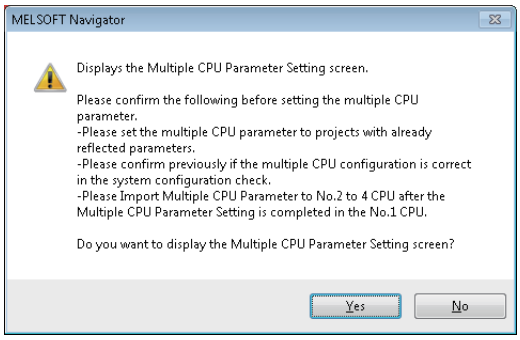
5. Select [Project] ⇨ [Save] in the menu bar of GX Works2.



6. Select the CPU No.2 controller on the Module Configuration window.

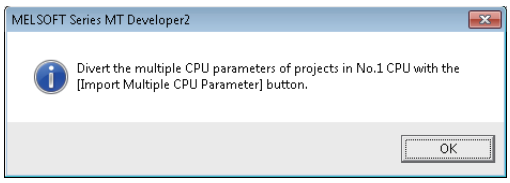


7. Select [Q Module Configuration] ⇨ [Parameter] ⇨ [Multiple CPU Parameter Setting] in the menu bar.


MELSOFT Navigator
Displays the Multiple CPU Parameter Setting screen.
Please confirm the following before setting the multiple CPU parameter.
-Please set the multiple CPU parameter to projects with already reflected parameters.
-Please confirm previously if the multiple CPU configuration is correct in the system configuration check.
-Please Import Multiple CPU Parameter to No.2 to 4 CPU after the Multiple CPU Parameter Setting is completed in the No.1 CPU.
Do you want to display the Multiple CPU Parameter Setting screen?
Yes
No

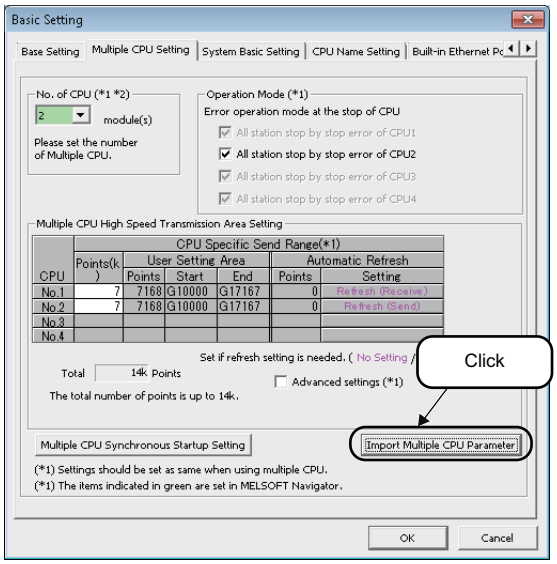
The message shown on the left is displayed.

8. Read the message and click the [Yes] button.


MELSOFT Series MT Developer2
Divert the multiple CPU parameters of projects in No.1 CPU with the [Import Multiple CPU Parameter] button.
OK

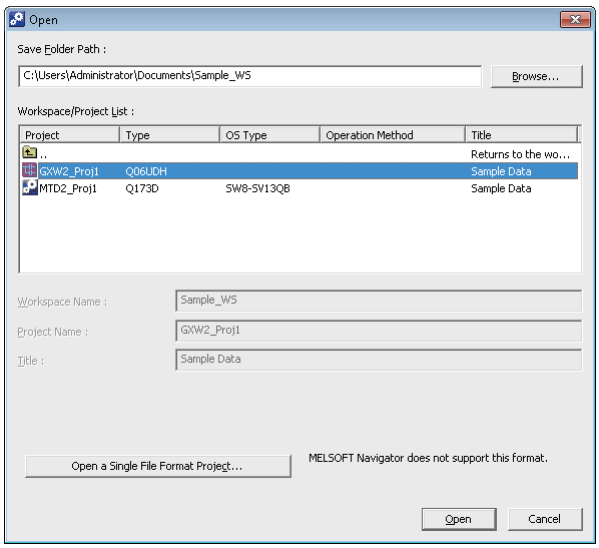
MT Developer2 is activated and the message shown on the left is displayed.

9. Read the message and click the [OK] button.


Basic Setting
Base Setting
Multiple CPU Setting
System Basic Setting
CPU Name Setting
No. of CPU (*1 *2)
2
module(s)
Please set the number of Multiple CPU.
Operation Mode (*1)
Error operation mode at the stop of CPU
All station stop by stop error of CPU1
All station stop by stop error of CPU2
All station stop by stop error of CPU3
All station stop by stop error of CPU4
Multiple CPU High Speed Transmission Area Setting
CPU Specific Send Range(*1)
CPU
Points(k)
User Setting Area
Points
Start
End
Automatic Refresh
Points
Setting
No.1 7 7168 G10000 G17167 0 Refresh (Receive)
No.2 7 7168 G10000 G17167 0 Refresh (Send)
No.3
No.4
Set if refresh setting is needed. (No Setting /
Total 14k Points
Advanced settings (*1)
The total number of points is up to 14k.
Click
Multiple CPU Synchronous Startup Setting
Import Multiple CPU Parameter
(*1) Settings should be set as same when using multiple CPU.
(*1) The items indicated in green are set in MELSOFT Navigator.
OK
Cancel

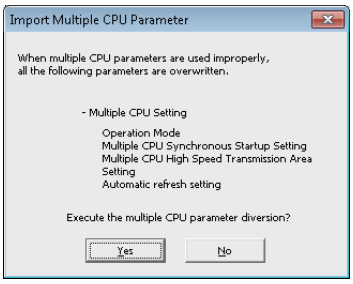
The "Basic Setting" screen is displayed.

10. Click the [import Multiple CPU Parameter] button.



The "Open" screen is displayed.

11. Check that the project name allocated to the CPU No.1 is selected, and click the [Open] button.


Import Multiple CPU Parameter
When multiple CPU parameters are used improperly, all the following parameters are overwritten.
- Multiple CPU Setting
Operation Mode
Multiple CPU Synchronous Startup Setting
Multiple CPU High Speed Transmission Area Setting
Automatic refresh setting
Execute the multiple CPU parameter diversion?
Yes
No

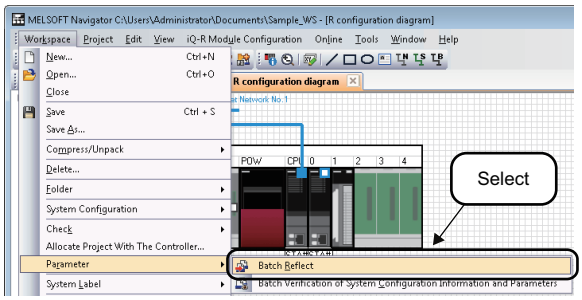
The message shown on the left is displayed.

12. Read the message and click the [Yes] button.
The multiple CPU parameter of CPU No.1 is utilized for CPU No.2.

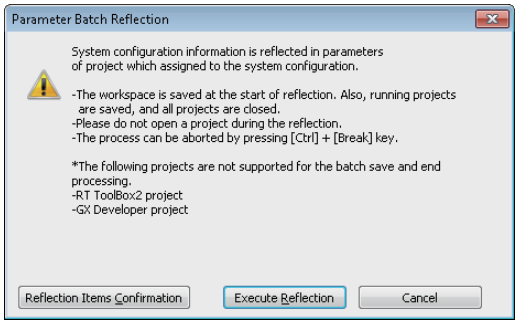
Reflecting parameters to projects

Reflect parameters set in MELSOFT Navigator to projects.
For MELSEC iQ-F series, refer to the following section.
☞ Page 68 MELSEC iQ-F series

Operating procedure

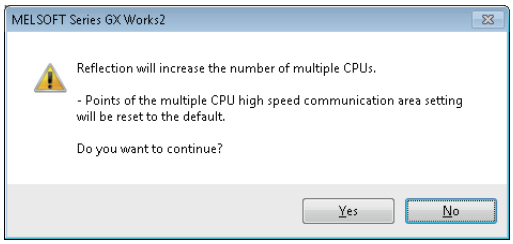


1. Select [Workspace] ⇨ [Parameter] ⇨ [Batch Reflect] in the menu bar.


Parameter Batch Reflection
System configuration information is reflected in parameters of project which assigned to the system configuration.
-The workspace is saved at the start of reflection. Also, running projects are saved, and all projects are closed.
-Please do not open a project during the reflection.
-The process can be aborted by pressing [Ctrl] + [Break] key.
*The following projects are not supported for the batch save and end processing.
-RT ToolBox2 project
-GX Developer project
Reflection Items Confirmation
Execute Reflection
Cancel

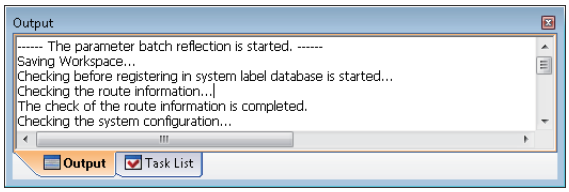
The message shown on the left is displayed.

2. Read the message and click the [Execute Reflection] button.


MELSOFT Series GX Works2
Reflection will increase the number of multiple CPUs.
- Points of the multiple CPU high speed communication area setting will be reset to the default.
Do you want to continue?
Yes
No

The message shown on the left is displayed.

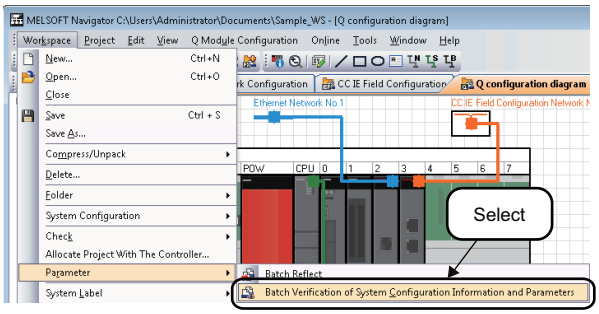
3. Read the message and click the [Yes] button.


Output
------ The parameter batch reflection is started. ------
Saving Workspace...
Checking before registering in system label database is started...
Checking the route information...
The check of the route information is completed.
Checking the system configuration...
Output
Task List

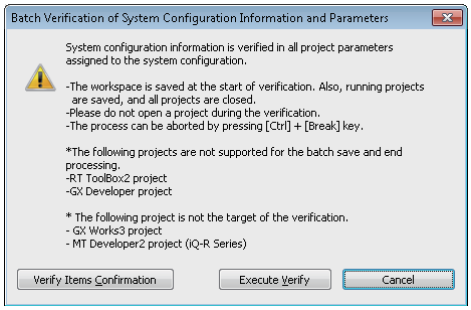
The parameters are reflected to the projects.
Error or Warning is displayed on the Output window when the reflection result contains an error. Check the error description on the Task List window and correct the error.

■Verifying system configuration information with parameters

After parameters are reflected to projects, check for differences between parameters (system configuration information) set in MELSOFT Navigator and parameters of project assigned to the respective controllers.

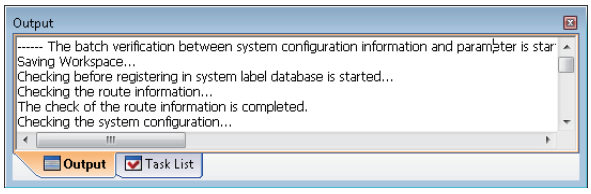


1. Select [Workspace] ⇨ [Parameter] ⇨ [Batch Verification of System Configuration Information and Parameters] in the menu bar.


Batch Verification of System Configuration Information and Parameters
System configuration information is verified in all project parameters assigned to the system configuration.
-The workspace is saved at the start of verification. Also, running projects are saved, and all projects are closed.
-Please do not open a project during the verification.
-The process can be aborted by pressing [Ctrl] + [Break] key.
*The following projects are not supported for the batch save and end processing.
-RT ToolBox2 project
-GX Developer project
* The following project is not the target of the verification.
- GX Works3 project
- MT Developer2 project (iQ-R Series)
Verify Items Confirmation
Execute Verify
Cancel

The message shown on the left is displayed.

2. Read the message and click the [Execute Verify] button.


Output
------ The batch verification between system configuration information and parameter is star
Saving Workspace...
Checking before registering in system label database is started...
Checking the route information...
The check of the route information is completed.
Checking the system configuration...
Output
Task List

The verification is performed.
Error or Warning is displayed on the Output window when the verification result contains an error. Check the error description on the Task List window and correct the error.

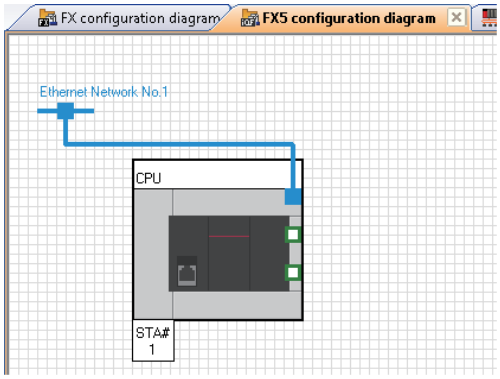
MELSEC iQ-F series

Reflect parameters set in MELSOFT Navigator to each project.

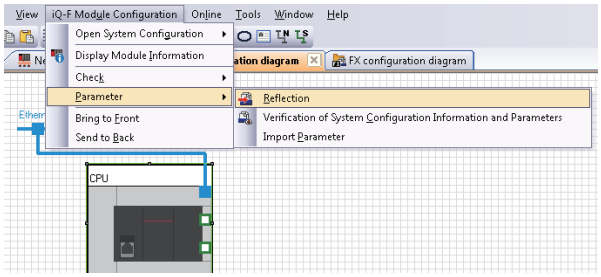
For GOT projects, refer to the following section.

☞ Page 66 Reflecting parameters to projects

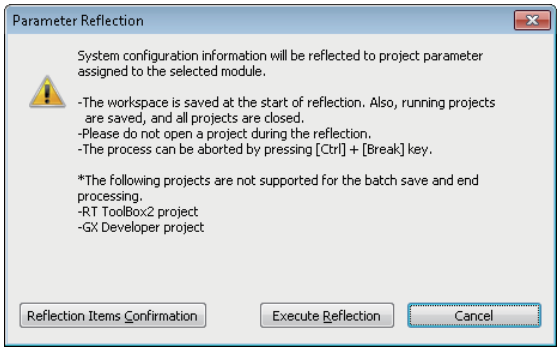
Operating procedure



1. Select the module to which the reflection target project has been allocated on the module configuration diagram.

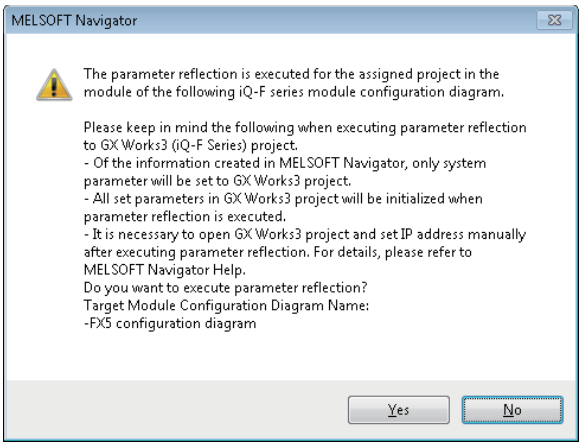


2. Select [iQ-F Module Configuration] ⇨ [Parameter] ⇨ [Reflection] in the menu bar.


Parameter Reflection
System configuration information will be reflected to project parameter assigned to the selected module.
-The workspace is saved at the start of reflection. Also, running projects are saved, and all projects are closed.
-Please do not open a project during the reflection.
-The process can be aborted by pressing [Ctrl] + [Break] key.
*The following projects are not supported for the batch save and end processing.
-RT ToolBox2 project
-GX Developer project
Reflection Items Confirmation
Execute Reflection
Cancel

The message shown on the left is displayed.

3. Read the message and click the [Execute Reflection] button.


MELSOFT Navigator
The parameter reflection is executed for the assigned project in the module of the following iQ-F series module configuration diagram.
Please keep in mind the following when executing parameter reflection to GX Works3 (iQ-F Series) project.
- Of the information created in MELSOFT Navigator, only system parameter will be set to GX Works3 project.
- All set parameters in GX Works3 project will be initialized when parameter reflection is executed.
- It is necessary to open GX Works3 project and set IP address manually after executing parameter reflection. For details, please refer to MELSOFT Navigator Help.
Do you want to execute parameter reflection?
Target Module Configuration Diagram Name:
-FX5 configuration diagram
Yes
No

The message shown on the left is displayed.

4. Read the message and click the [Yes] button.

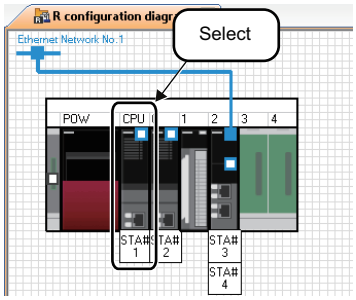
Precautions

After the parameter reflection, the parameters (except for system parameter) set to GX Works3 will be initialized.
To retain the parameters in GX Works3 project, backup the project before reflecting the parameters.

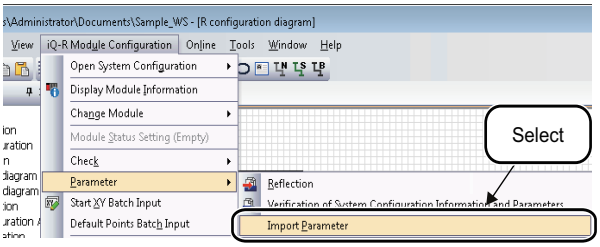
Importing parameters configured in each project

Import the parameters which are configured in a programmable controller project (GX Works3) or motion controller project of MELSEC iQ-R series in MELSOFT Navigator.

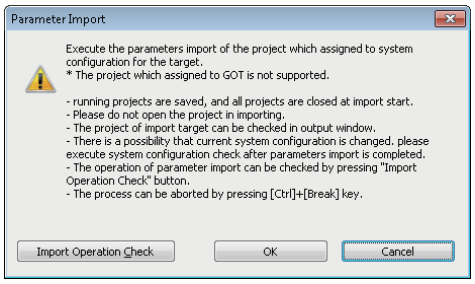
Operating procedure



1. Select the module to which the import target project has been allocated on the module configuration diagram.



2. Select [iQ-R Module Configuration] ⇨ [Parameter] ⇨ [Import Parameter] in the menu bar.


Parameter Import
Execute the parameters import of the project which assigned to system configuration for the target.
* The project which assigned to GOT is not supported.
- running projects are saved, and all projects are closed at import start.
- Please do not open the project in importing.
- The project of import target can be checked in output window.
- There is a possibility that current system configuration is changed. please execute system configuration check after parameters import is completed.
- The operation of parameter import can be checked by pressing "Import Operation Check" button.
- The process can be aborted by pressing [Ctrl]+[Break] key.
Import Operation Check
OK
Cancel

The message shown on the left is displayed.

3. Read the message and click the [OK] button.

Precautions

When the parameters are imported, the module configurations configured on each project are reflected on the module configuration of MELSOFT Navigator.

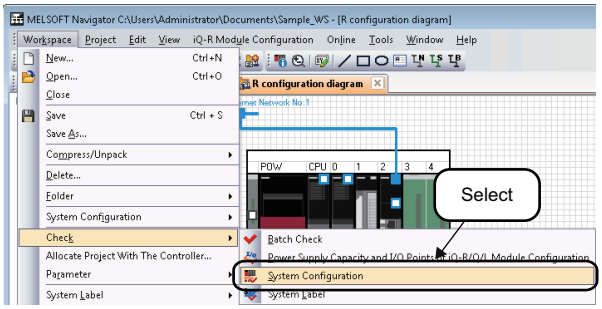
3.7 Checking Workspace

Check the system configurations created in the workspace, power supply capacity, and I/O points.

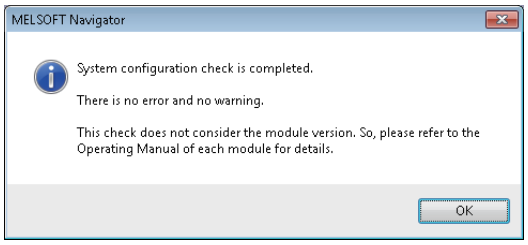
Checking system configuration

Check the conditions such as; module configurations of created system configuration and project allocation status.

Operating procedure



1. Select [Workspace] ⇨ [Check] ⇨ [System Configuration] in the menu bar.


MELSOFT Navigator
System configuration check is completed.
There is no error and no warning.
This check does not consider the module version. So, please refer to the Operating Manual of each module for details.
OK

The message shown on the left is displayed.

2. Read the message and click the [OK] button.

Error or Warning is displayed on the Output window when the check result contains an error. Check the error description on the Task List window and correct the error.

The check targets are as follows:

■Common to MELSEC iQ-R series, MELSEC iQ-F series, Q series, L series, FX series module configurations

- Unplaced modules
- Matching of project type and CPU module model name of module configuration
- Allocation of projects in the workspace to CPU modules or other modules of module configuration

■MELSEC iQ-R series/Q series module configuration

- Power supply placing condition
- CPU module configuration (multiple CPU system)
- Configuration of main base unit and extension base unit or GOT
- Number of placed modules (For details, refer to the Help of MELSOFT Navigator.)
- Consumption current within the range
- I/O points within the range

■L series module configuration

- Power supply and END cover attaching condition
- Configuration of main block and extension blocks, and GOT
- Consumption current within the range
- I/O points within the range

■Common to CC IE Field configurations/CC-Link configurations/Ethernet configurations/AnyWireASLINK configurations

- Module configuration of CC IE Field configuration, CC-Link configuration, Ethernet configuration, and AnyWireASLINK configuration

Note that, CPU module versions, module versions, and GOT model names are not checked.

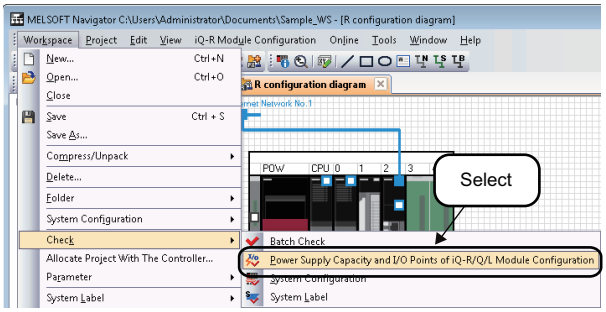
Precautions

When installing the first GOT at the position more than 13.2m in distance, a bus extension connector box is required.

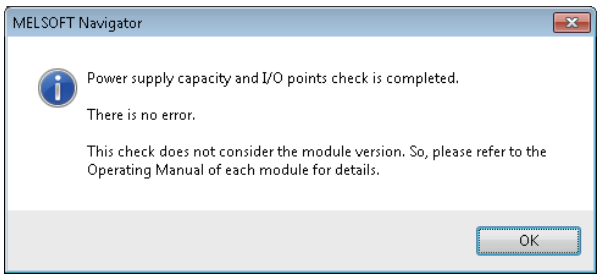
Checking power supply capacity and I/O points

Check power supply capacity and I/O points of created system configuration.
This functions is not supported by MELSEC iQ-F series/FX series.

Operating procedure

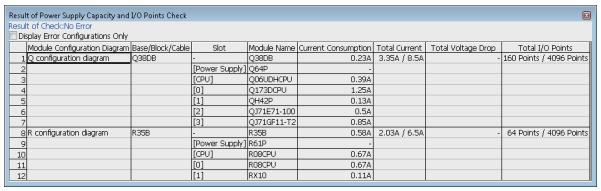


1. Select [Workspace] ⇨ [Check] ⇨ [Power Supply Capacity and I/O Points of iQ-R/Q/L Module Configuration] in the menu bar.


MELSOFT Navigator
Power supply capacity and I/O points check is completed.
There is no error.
This check does not consider the module version. So, please refer to the Operating Manual of each module for details.
OK

The message shown on the left is displayed.

2. Read the message and click the [OK] button.



The "Result of Power Supply Capacity and I/O Points Check" screen is displayed.

3. Check for errors in the check result.

When an error exists in the check result (items displayed in red), modules for re-selection are displayed by clicking "Total Output Current" or "Total I/O Points".
A message is displayed by clicking "Total Voltage Drop". Read the message and correct the module configuration diagrams.

Precautions

Values displayed under "Total Output Current" may be different from the total output current of module with latest version. For the total output current of module with latest version, check the latest manuals of the respective modules.

3.8 Editing Projects

Edit created projects and utilize them for other workspace.

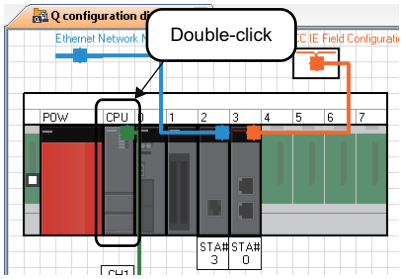
Editing projects

Activate the created project for editing.

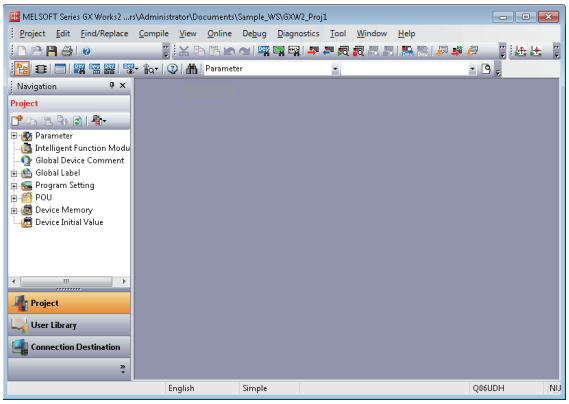
The following is an example of activating a programmable controller project (GX Works2).

When activating a programmable controller project (GX Works3), motion controller project, or GOT project, follow the same procedure as shown below.

Operating procedure



On the Module Configuration window, double-click the controller to which a programmable controller project (GX Works2) is allocated.



The GX Works2 project is activated.

For the method for editing GX Works2 projects, refer to the following manuals.

- 📖 GX Works2 Version 1 Operating Manual (Common)
- 📖 GX Works2 Version 1 Operating Manual (Simple Project)
- 📖 GX Works2 Version 1 Operating Manual (Structured Project)
- 📖 GX Works2 Beginner's Manual (Simple Project)
- 📖 GX Works2 Beginner's Manual (Structured Project)

Point

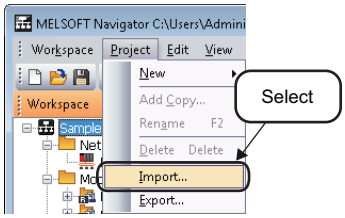
- Projects can also be activated from the Workspace window or Project List window.
- The related software is activated by double-clicking the module on the FX Module Configuration window.

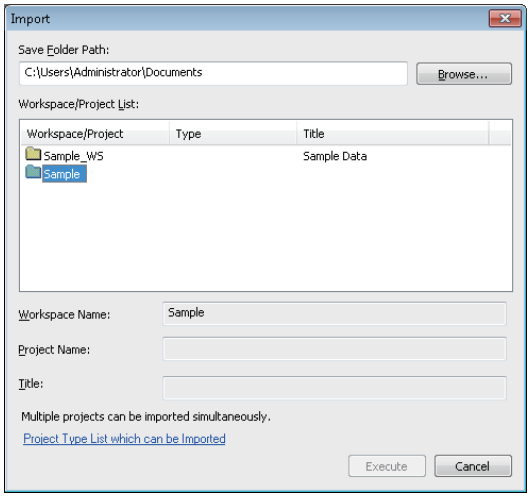
Utilizing existing projects (import)

Utilize a project created in other workspace with MELSOFT Navigator.
The projects created with an engineering software (GX Works3, GX Works2, MT Developer2, GT Designer3, and RT ToolBox2) and GX Developer can be imported to the workspace created with MELSOFT Navigator.
GX Developer projects are converted to GX Works2 format and imported to MELSOFT Navigator.
However, depending on the programmable controller type, some projects are not supported for import, or not converted to GX Works2 format. For details, refer to the Help of MELSOFT Navigator.
In addition, a project imported in GX Developer format cannot be allocated to a controller etc. on the Module Configuration window.
The following operation is an example when utilizing a GX Works2 project.
For utilizing GX Works3 projects, MT Developer2 projects, or GT Designer3 projects, follow the same procedure as shown below.

Operating procedure

■Importing projects





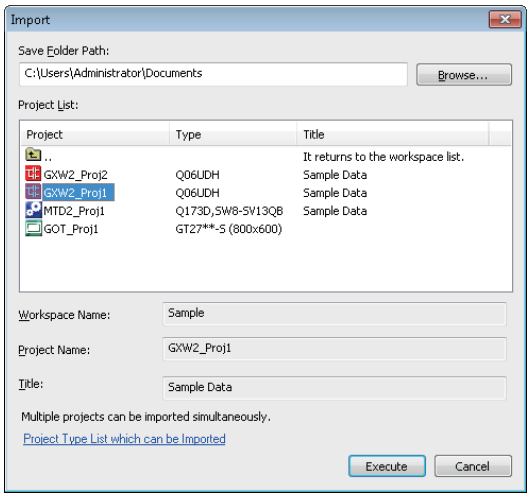
1. Select [Project] ⇨ [Import] in the menu bar.

The "Import" screen is displayed.

2. Set "Save Folder Path" for the project to be utilized, and double-click the workspace name of the project to be imported.

Setting content (sample)

- Save Folder Path: C:\Users\(user name)\Documents
- Workspace Name: Sample

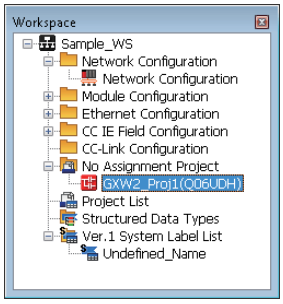


Selecting the workspace displays the list of GX Works2 projects.

3. Select the project to be utilized, and click the [Execute] button.

Setting content (sample)

- Project Name: GXW2_Proj1



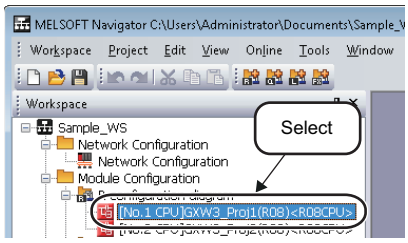
The project is imported in the Workspace window.

Point

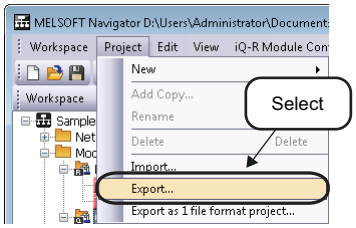
- Only the project in workspace format can be imported in MELSOFT Navigator. For the project exported in 1 file format, open it in each engineering software and save it in workspace format, and then import it.
- Projects in several workspaces can be organized into one workspace by importing the projects. For details, refer to the Help of MELSOFT Navigator.

■Exporting projects

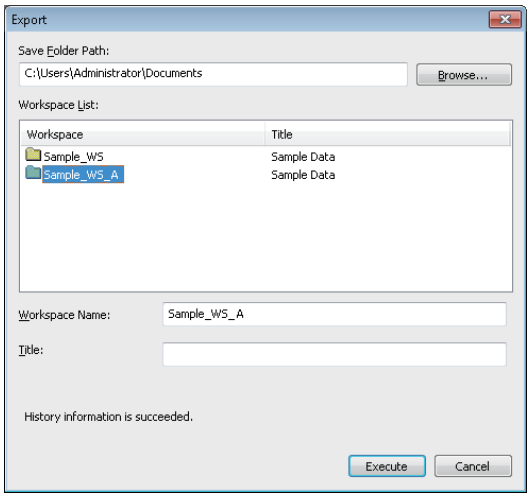
Export a project of an open workspace, and add it to a new or existing workspace.



1. Select the project to be exported on the Workspace window.



2. Select [Project] ⇨ [Export] in the menu bar.



The "Export" screen is displayed.

3. Select "Save Folder Path" to be saved, and click the [Execute] button.

Setting content (sample)

- Save Folder Path: C:\Users\(user name)\Documents
- Workspace Name: Sample_WS_A

Point

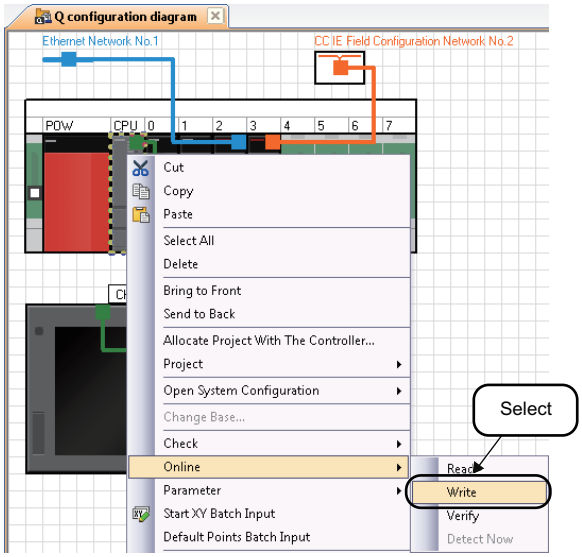
In the step 2, select [Export as 1 file format project] from the menu bar to export the project in 1 file format. When importing the project exported in 1 file format, open the project once in each engineering software and save it in workspace format.

3.9 Reading/Writing/Verifying Controller Data

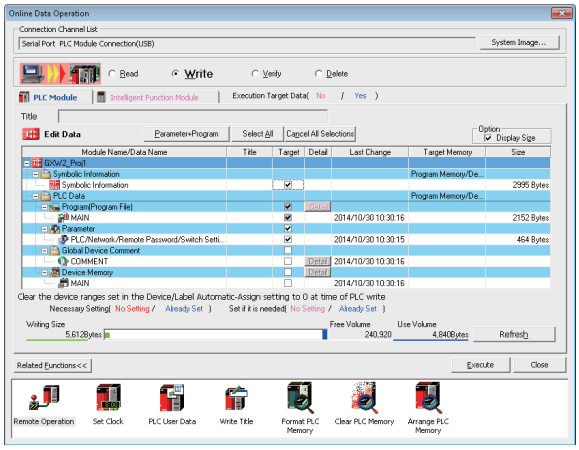
Read/write/verify project data (programmable controller project, motion controller project, GOT project) from/to/with each controller.

Operating procedure

■Programmable controller projects



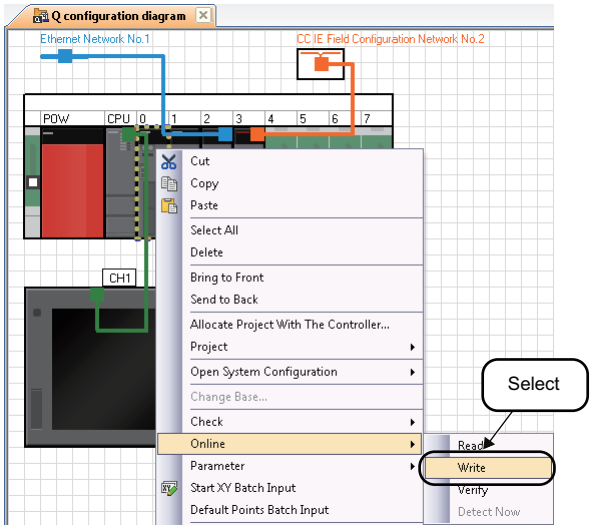
On the Module Configuration window, right-click the controller to which a programmable controller project is allocated, and select [Online] ⇨ [Read]/[Write]/[Verify] in the shortcut menu.
The screen shown on the left is an example when [Write] is selected. Perform the same operation for [Read] and [Verify].



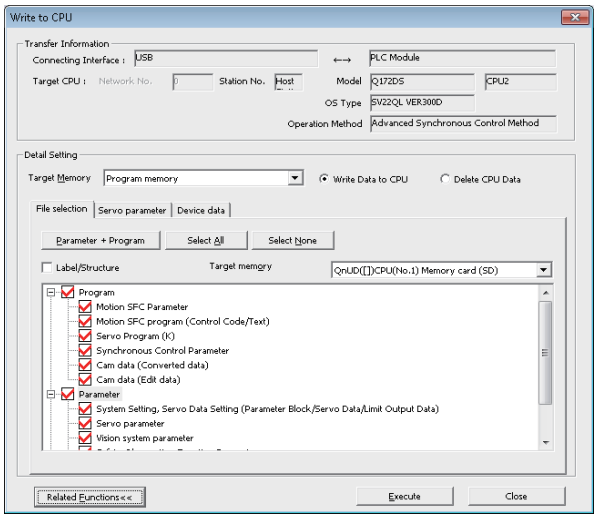
The "Online Data Operation" screen is displayed.
For the operation method, refer to the following manuals.

- GX Works3 Operating Manual
- GX Works2 Version 1 Operating Manual (Common)
- GX Works2 Version 1 Operating Manual (Simple Project)
- GX Works2 Version 1 Operating Manual (Structured Project)
- GX Works2 Beginner's Manual (Simple Project)
- GX Works2 Beginner's Manual (Structured Project)

■Motion controller projects

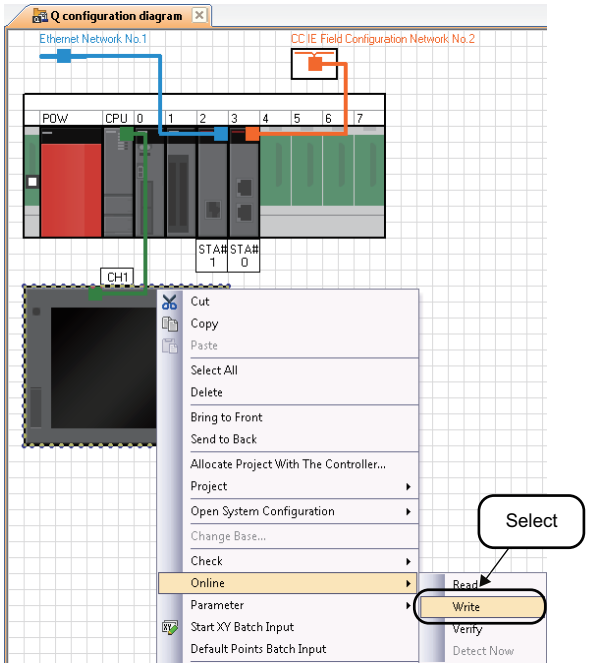


On the Module Configuration window, right-click the controller to which a motion controller project is allocated, and select [Online] ⇨ [Read]/[Write]/ [Verify] in the shortcut menu.
The screen shown on the left is an example when [Write] is selected. Perform the same operation for [Read] and [Verify].

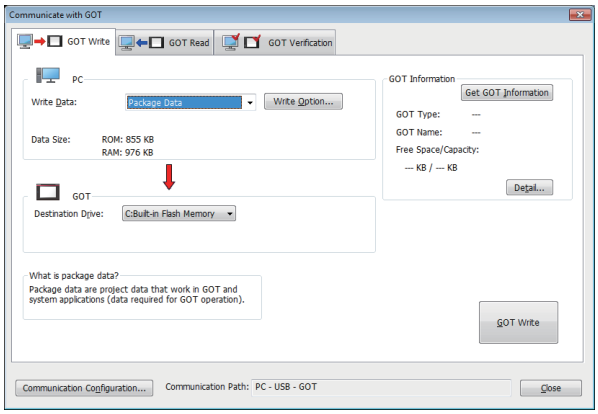


The "Write to CPU" screen is displayed.
For the operation method, refer to the following function.
📖 HELP function of MT Developer2

■GOT projects



On the Module Configuration window, right-click the controller to which a GOT project is allocated, and select [Online] ⇨ [Read]/[Write]/[Verify] in the shortcut menu.
The screen shown on the left is an example when [Write] is selected. Perform the same operation for [Read] and [Verify].



The "Communicate with GOT" screen is displayed.
For the operation method, refer to the following manuals.
📖 GT Designer3 Version 1 Screen Design Manual (Fundamentals)
📖 GT Designer3 (GOT2000) Screen Design Manual
📖 Connection manuals for GOT1000 series (Mitsubishi Products), (Non-Mitsubishi Products 1), (Non-Mitsubishi Products 2), (Microcomputer, MODBUS Products, Peripherals)
📖 Connection manuals for GOT2000 series supported by GT Works3 Version 1 (Mitsubishi Products), (Non-Mitsubishi Products 1), (Non-Mitsubishi Products 2), (Microcomputer, MODBUS Products, Peripherals)

3.10 Saving Workspaces

Save a created workspace.

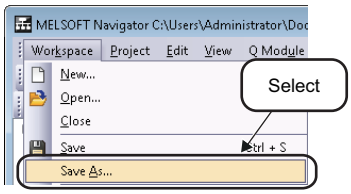
By saving workspaces with compression, the saved data can be passed easier.

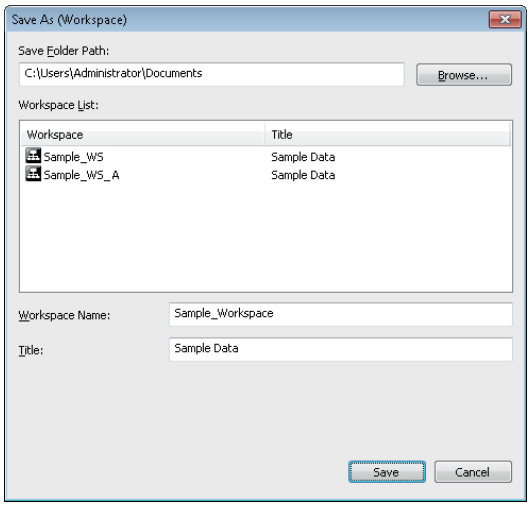
Also, the compressed workspace can be opened with decompression. For details, refer to the Help of MELSOFT Navigator.

Saving workspaces with specified names

Save an open workspace with a specified name.

Operating procedure





1. Select [Workspace] ⇨ [Save As] in the menu bar.

The "Save As (Workspace)" screen is displayed.

2. Set "Save Folder Path", "Workspace Name", and "Title" for the workspace.
After setting the items, click the [Save] button.

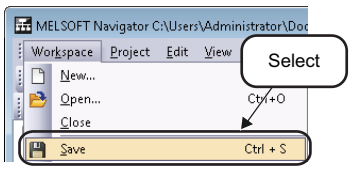
Setting content (sample)

- Save Folder Path: C:\Users\(user name)\Documents
- Workspace Name: Sample_Workspace
- Title (option): Sample Data

Overwriting workspaces

Save an open workspace with the same name.

Operating procedure



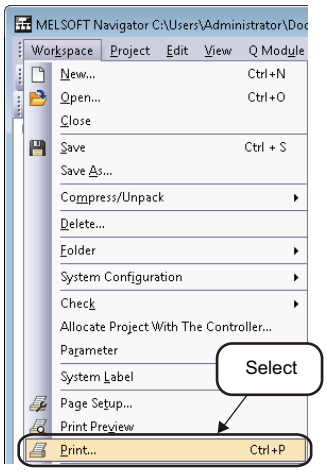
Select [Workspace] ⇨ [Save] in the menu bar.

3.11 Printing Workspaces

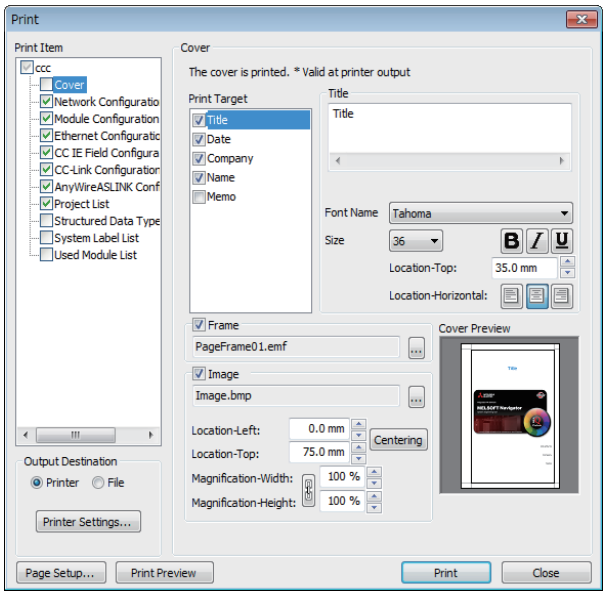
Print a created workspace.

By selecting "File" for "Target", data can be saved in a CSV format file or a text format file. For details, refer to the Help of MELSOFT Navigator.

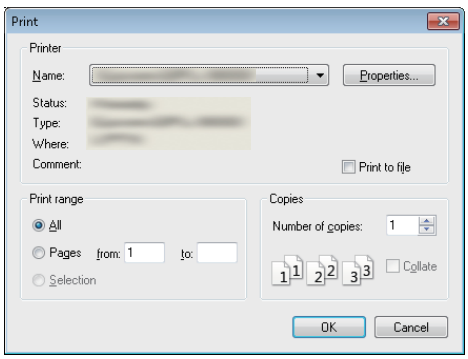
Operating procedure



1. Select [Workspace] ⇨ [Print] in the menu bar.



2. Select the items for print and click the [Print] button.



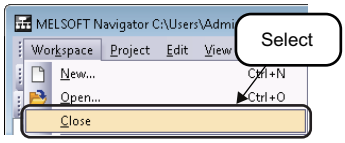
The "Print" screen is displayed.

3. Set a printer and click the [OK] button.

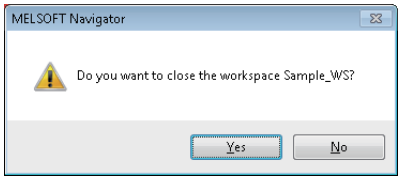
3.12 Closing Workspaces

Close an open workspace.

Operating procedure



1. Select [Workspace] ⇨ [Close] in the menu bar.

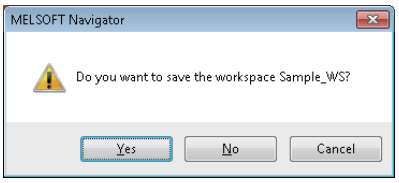


The message shown on the left is displayed.

2. Click the [Yes] button.

Point

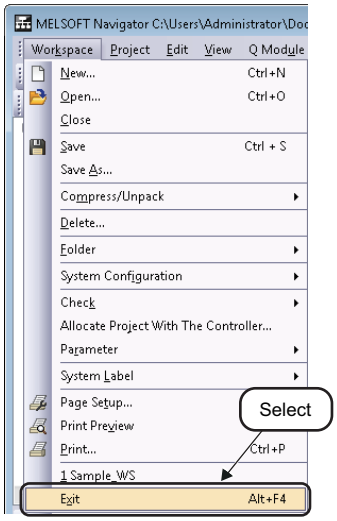
When the workspace is not saved, the following message is displayed.
Click the [Yes] button to save the workspace.
Click the [No] button to close the workspace without saving it.



3.13 Exiting MELSOFT Navigator

Exit a MELSOFT Navigator.

Operating procedure

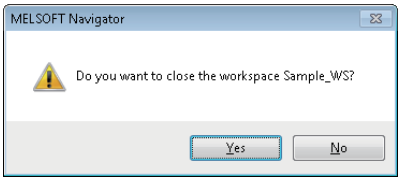


Select [Workspace] ⇨ [Exit] in the menu bar.

The MELSOFT Navigator is exit.

Point

When the workspace is open, the following message is displayed.
Click the [Yes] button to close the workspace.
Click the [No] button to abort the operation of exiting MELSOFT Navigator.



4 USING SYSTEM LABELS

This chapter explains the methods for using system labels which are shared within workspace of programmable controller projects (GX Works3, GX Works2), motion controller projects, and GOT projects.

4.1 Using System Label Ver.2

System label Ver.2 has the following features:

- Extension of the number of characters such as system label name
- Extension of the number of applicable system labels
- Projects that are referenced to system labels can be used regardless of the change of devices which are assigned for system labels
- Multiple device comments can be set for one system label
- Structures which have structure elements can be registered as system labels

System label Ver.2 is supported by the following devices:

- MELSEC iQ-R series
- GOT2000 series

For details on the system label Ver.2, refer to the Help of MELSOFT Navigator.

Point

- When the system is configured with only the devices which are supported by system label Ver.2, system labels can be changed from system label Ver.1 to Ver.2. However, system label Ver.2 cannot be restored to system label Ver.1.
- For the system in which a device, which is not supported by system label Ver.2, is used, use system label Ver.1.

Precautions

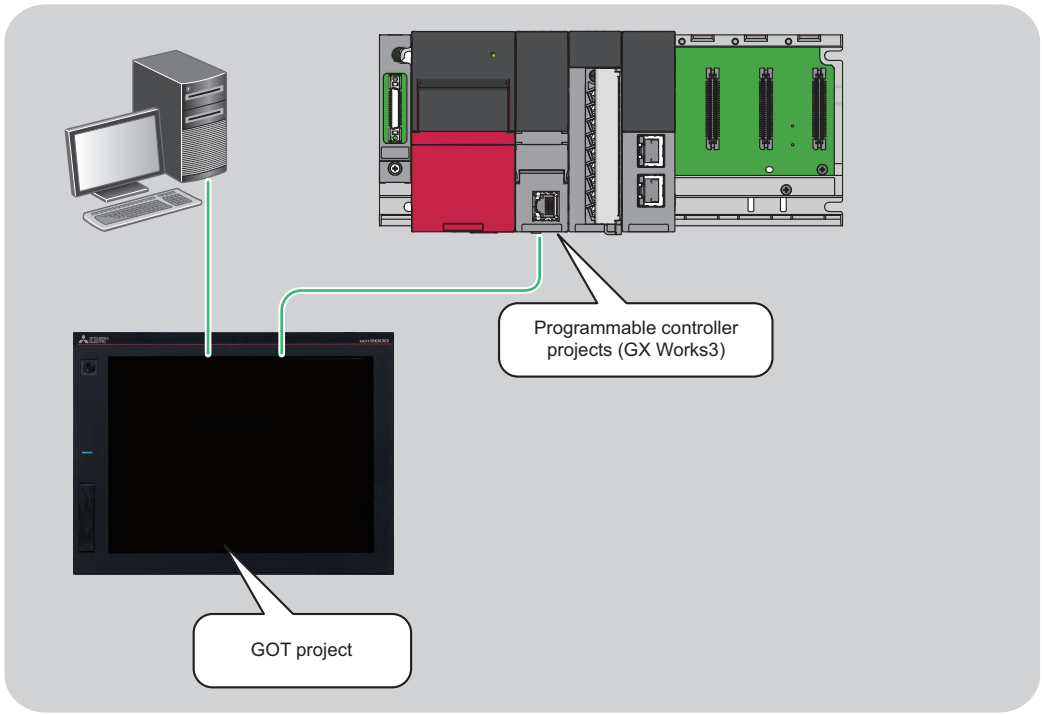
After the registered system label Ver.1 is changed to system label Ver.2, the changed content is required to be imported in the projects in which the system labels are used.

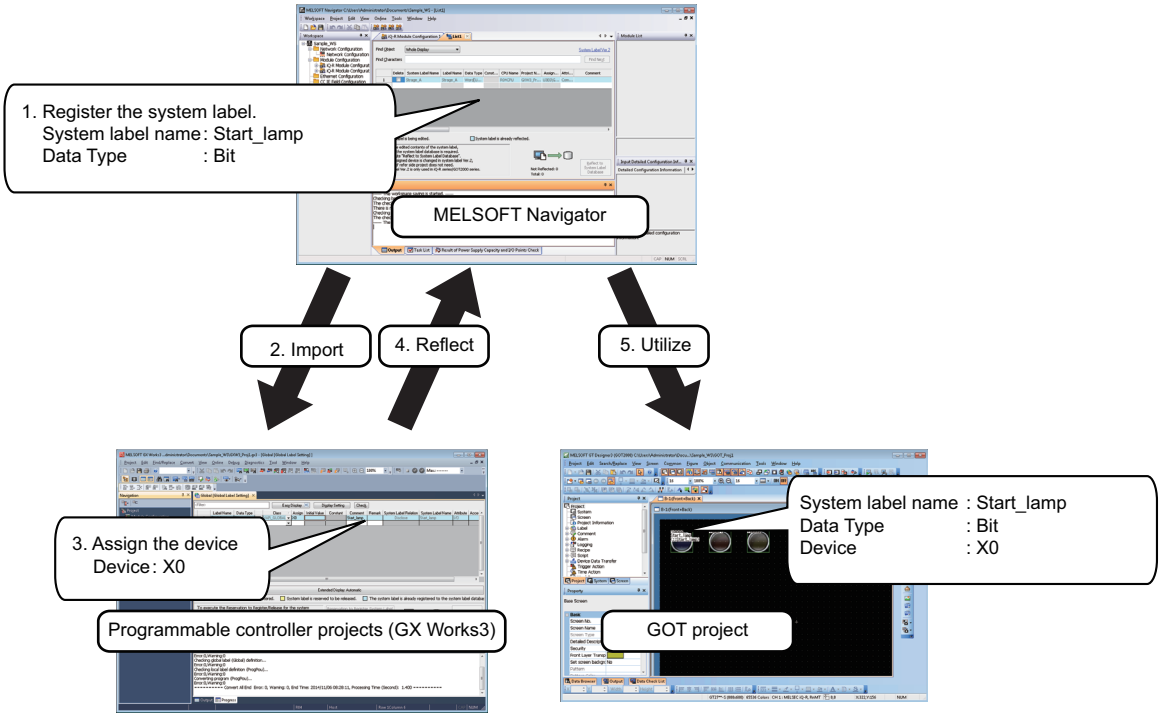
To import the changed content, right-click the System label notification icon which is displayed on the status bar, and select [Check the changes of the System Label Database]/[Check the changes of the System Label Data Base]/[Confirm Update of System Label Database]/[Show System Label Differences and perform Update/Check] in the shortcut menu.

Additionally, the registered system label Ver.1 may not be changed to system label Ver.2.

Registering system label Ver.2 in MELSOFT Navigator

This section explains a method for using system label Ver.2 with the top-down design method in the following system configuration.

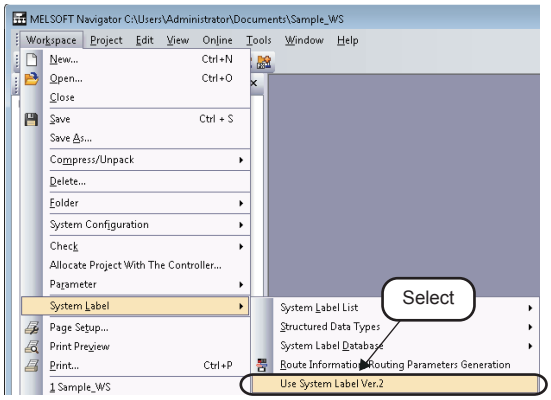




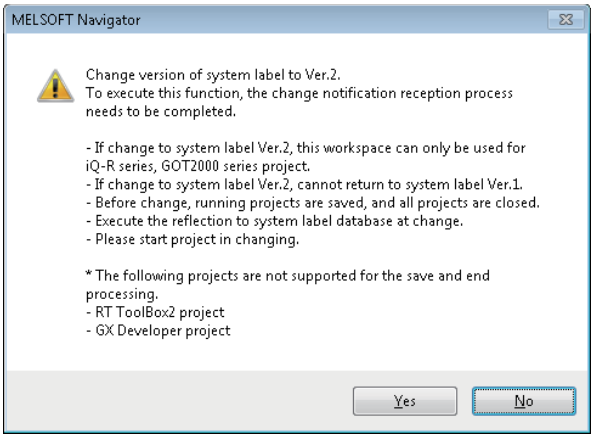
Registering system label Ver.2 in MELSOFT Navigator

Create and register system label Ver.2 in MELSOFT Navigator.

Operating procedure

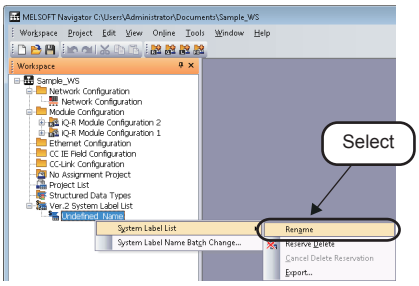


1. Select [Workspace] ⇨ [System Label] ⇨ [Use System Label Ver.2] in the menu bar.


MELSOFT Navigator
Change version of system label to Ver.2.
To execute this function, the change notification reception process needs to be completed.
- If change to system label Ver.2, this workspace can only be used for iQ-R series, GOT2000 series project.
- If change to system label Ver.2, cannot return to system label Ver.1.
- Before change, running projects are saved, and all projects are closed.
- Execute the reflection to system label database at change.
- Please start project in changing.
* The following projects are not supported for the save and end processing.
- RT ToolBox2 project
- GX Developer project
Yes
No

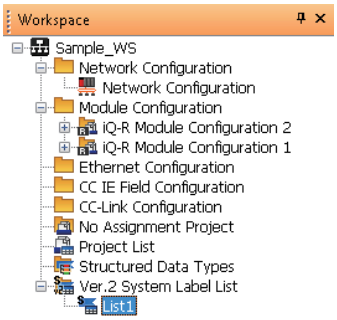
The message shown on the left is displayed.

2. Read the message and click the [Yes] button.

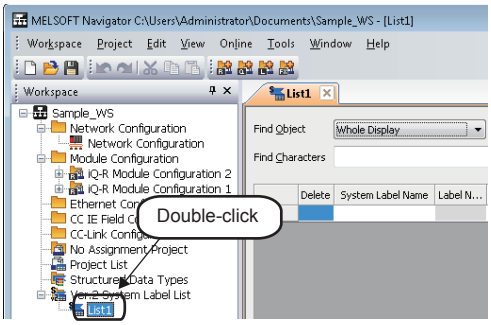


The "Ver.1 System Label List" is changed to "Ver.2 System Label List".

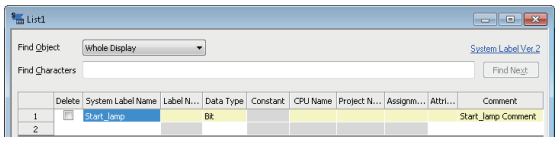
3. Right-click "Undefined_Name" under "Ver.2 System Label List" on the Workspace window, and select [System Label List] ⇨ [Rename] in the shortcut menu.



4. Enter 'List1' to change the system label name.



5. Double-click 'List1' on the Workspace window.

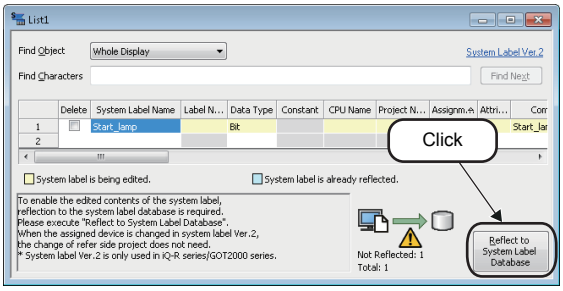


The system label list window is displayed.

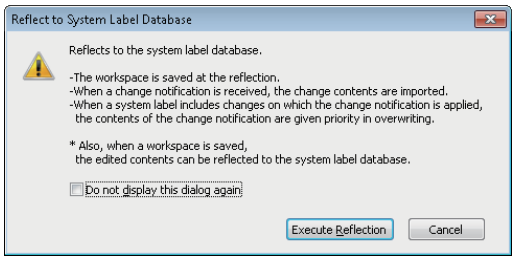
6. Set "System Label Name", "Data Type", and "Comment" for the system label Ver.2 to be registered.

Setting content (sample)

- System Label Name: Start_lamp
- Data Type: Bit
- Comment (option) : Start_lamp comment



7. Click the [Reflect to System Label Database] button.

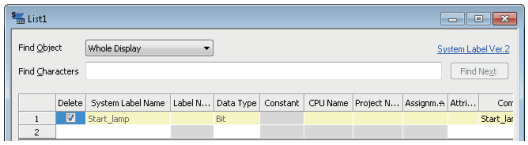

Reflect to System Label Database
Reflects to the system label database.
-The workspace is saved at the reflection.
-When a change notification is received, the change contents are imported.
-When a system label includes changes on which the change notification is applied,
the contents of the change notification are given priority in overwriting.
* Also, when a workspace is saved,
the edited contents can be reflected to the system label database.
Do not display this dialog again
Execute Reflection
Cancel

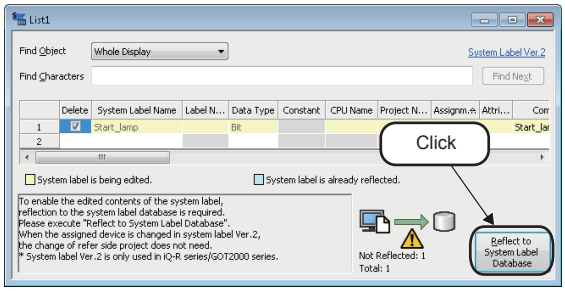
The message shown on the left is displayed.

8. Read the message and click the [Execute Reflection] button.

The system label Ver.2 is registered to the system label database, and the cell color turns light blue.

■Deleting system label Ver.2





1. Select a system label Ver.2 to be deleted.

2. Click the [Reflect to System Label Database] button.

Point

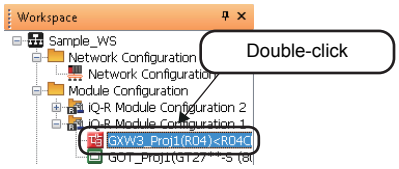
- System labels can also be registered to the system label database by saving the workspace after setting the system label Ver.2 to be registered.
- The system label Ver.2 created in CSV format or text format can be imported to the workspace. Also, system label Ver.2 created in the workspace can be exported in CSV format or text format. For details, refer to the Help of MELSOFT Navigator.

Assigning devices to system label Ver.2

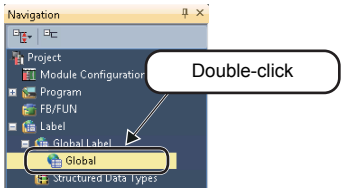
Import system label Ver.2 registered in MELSOFT Navigator to global labels of the programmable controller project (GX Works3) and assign devices to system label Ver.2 so that they can be utilized in other projects.

For importing system label Ver.2 to motion controller project, follow the same procedure as described below.

Operating procedure

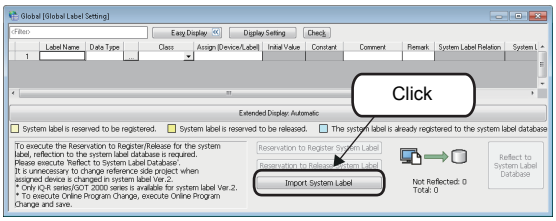


1. Double-click "GXW3_Proj1" on the Workspace window.



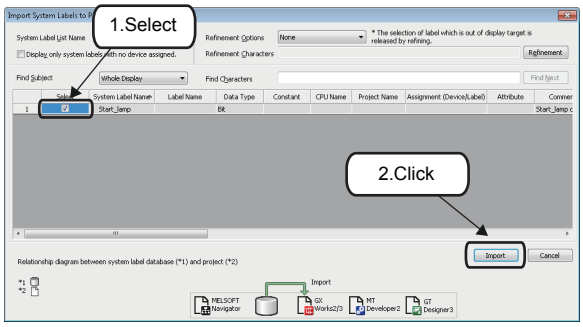
The GX Works3 project is opened.

2. Double-click "Global" on the Navigation window of GX Works3.



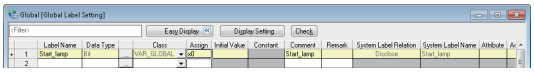
The global label editor is displayed.

3. Click the [Import System Label] button.



The "Import System Labels to Project" screen is displayed.

4. Select a system label Ver.2 to be imported, and click the [Import] button.

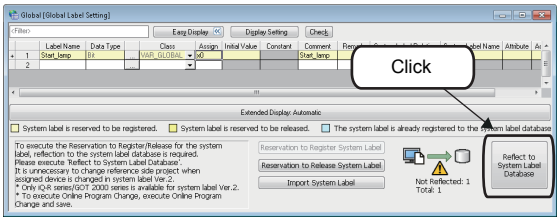


The system label Ver.2 registered in MELSOFT Navigator is registered to global label of GX Works3.

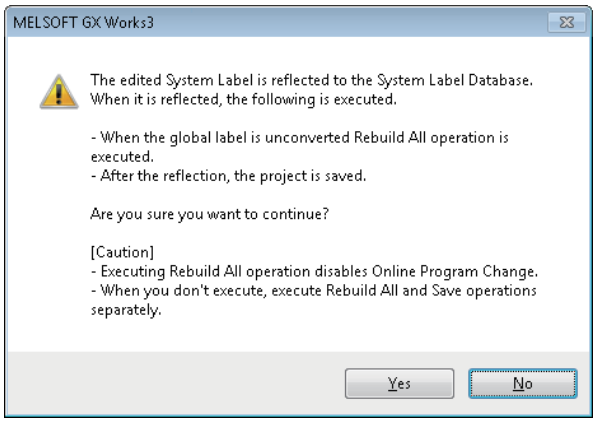
5. Set a device of the imported system label Ver.2.

Setting content (sample)

- Device : X0



6. Click the [Reflect to System Label Database] button.


MELSOFT GX Works3
The edited System Label is reflected to the System Label Database.
When it is reflected, the following is executed.
- When the global label is unconverted Rebuild All operation is executed.
- After the reflection, the project is saved.
Are you sure you want to continue?
[Caution]
- Executing Rebuild All operation disables Online Program Change.
- When you don't execute, execute Rebuild All and Save operations separately.
Yes
No

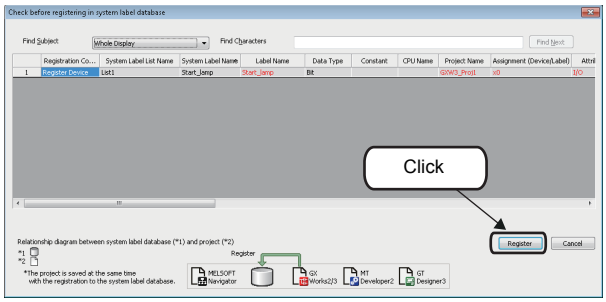
The message shown on the left is displayed.

7. Read the message and click the [Yes] button.

The Build and Save the project are performed.

For details on the compilation, refer to the following manual.

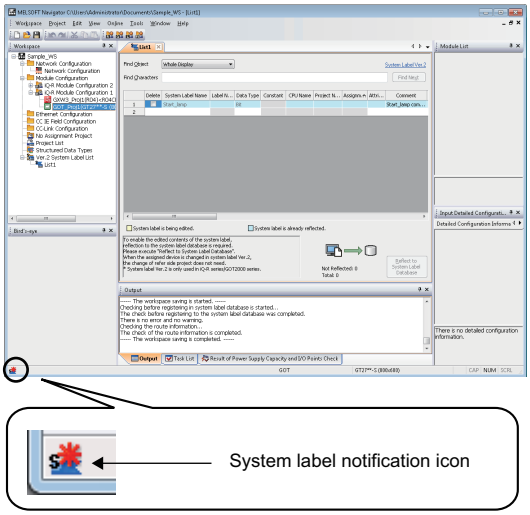
📖 GX Works3 Operating Manual



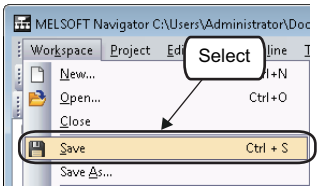
The "Check before registering in system label database" screen is displayed.

Contents to be registered are displayed in red.

8. Check the contents and click the [Register] button.



The system label notification icon is displayed on the status bar of MELSOFT Navigator.



9. Select [Workspace] ⇨ [Save] in the menu bar of MELSOFT Navigator.

The "Ver.2 System Label List" of MELSOFT Navigator is updated.

Point

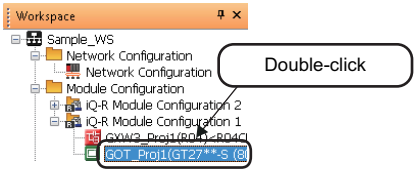
- After checking registration of system labels to the system label database in the step 9, system label Ver.2 in MELSOFT Navigator can also be updated by selecting [Workspace] ⇨ [System Label] ⇨ [System Label Database] ⇨ [Import Changed Contents] in the menu bar of MELSOFT Navigator and save the project.
- The system label Ver.2 of GX Works3 imported to each project can be used as global labels.

Using system labels in GT Designer3

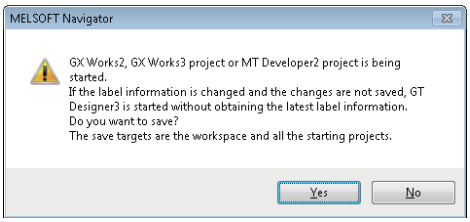
Use system label Ver.2 to which devices are assigned in a programmable controller project (GX Works3) for a GOT project.
In GOT projects, system label names can be specified when setting devices to created objects.
For the method on how to draw objects in GOT projects, refer to the following manuals.

GT Designer3 Version 1 Screen Design Manual (Fundamentals)
GT Designer3 Version 1 Screen Design Manual (Functions)

Operating procedure

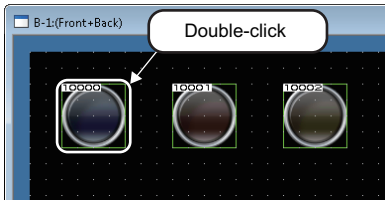


1. Double-click "GOT_Proj1" on the Workspace window.


MELSOFT Navigator
GX Works2, GX Works3 project or MT Developer2 project is being started.
If the label information is changed and the changes are not saved, GT Designer3 is started without obtaining the latest label information.
Do you want to save?
The save targets are the workspace and all the starting projects.
Yes
No

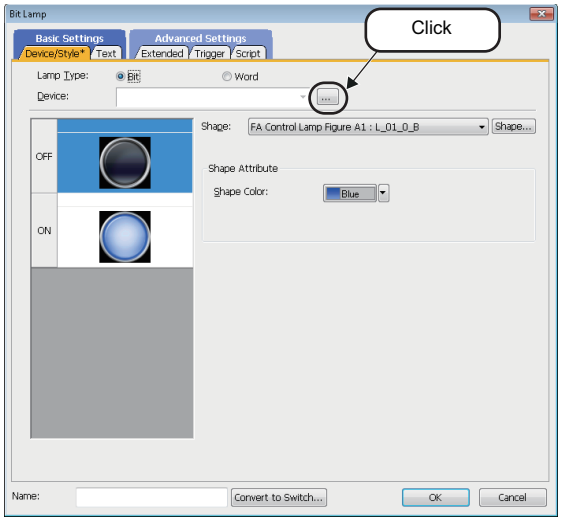
The message shown on the left is displayed when a GX Works2, GX Works3, or MT Developer2 project is open.

2. Read the message and click the [Yes] button.



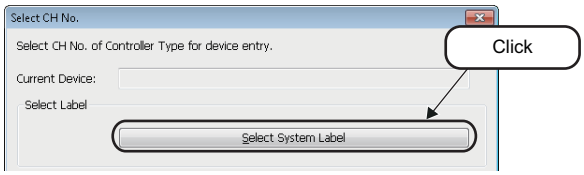
The GOT project is opened.

3. Double-click the created object.



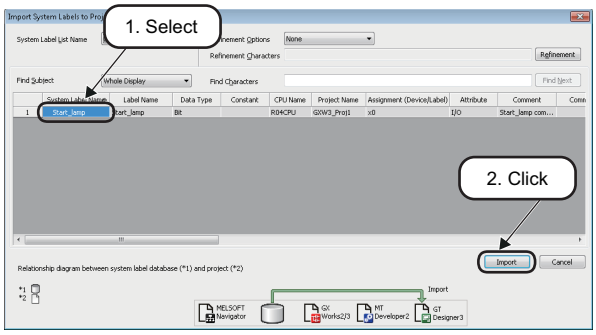
The "Bit Lamp" screen is displayed.

4. Click the [...] button.



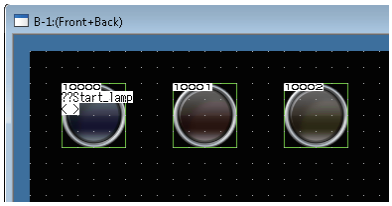
The "Select CH No." screen is displayed.

5. Click the [Select System Label] button.

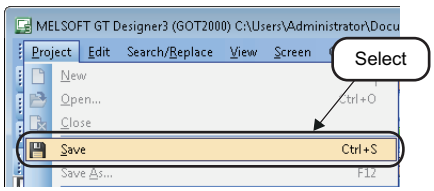


The "Import System Labels to Project" screen is displayed.

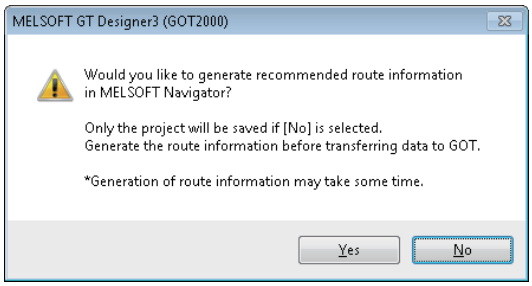
6. Select a system label Ver.2 to be used and click the [Import] button.



After the settings are completed, the system label name is displayed on the object.

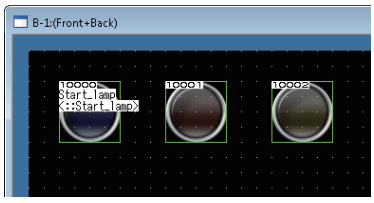


7. Select [Project] ⇨ [Save] in the menu bar.


MELSOFT GT Designer3 (GOT2000)
Would you like to generate recommended route information in MELSOFT Navigator?
Only the project will be saved if [No] is selected.
Generate the route information before transferring data to GOT.
*Generation of route information may take some time.
Yes
No

The message shown on the left is displayed.

8. Read the message and click the [Yes] button.



The system label Ver.2 is ready to be referenced.

Point

- After saving GT Designer3 project by clicking [No] button on the message in the step 8, system label Ver.2 can be used by selecting [Workspace] ⇨ [System Label] ⇨ [Route Information/Routing Parameters] in the menu bar of MELSOFT Navigator to create the route information/routing parameters.
- An error which occurs when referenced to system label Ver.2 can be checked on the "System Label Update/Check" screen of GT Designer3. For details, refer to the following manual.

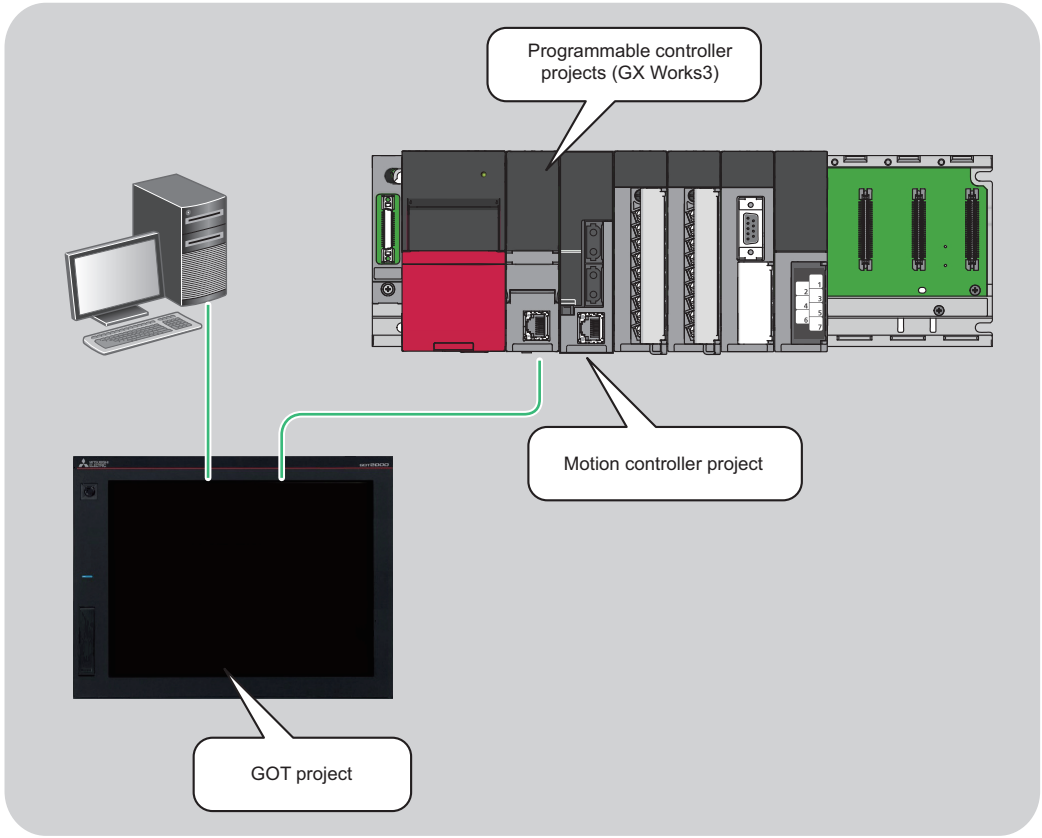
GT Designer3 Version 1 Screen Design Manual (Fundamentals)

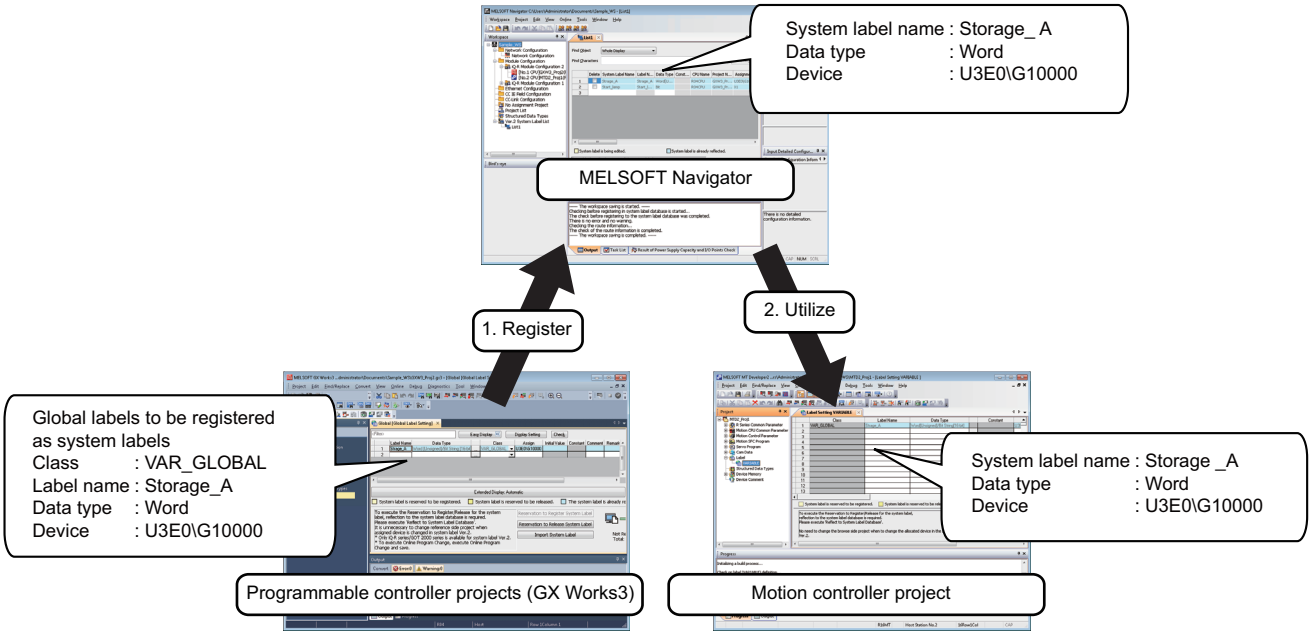
Utilizing Existing Labels as System Label Ver.2

This section explains a method for using system label Ver.2 with the bottom-up design method in the following system configuration.

The following is an example of utilizing system label Ver.2 registered in the programmable controller project (GX Works3) for the motion controller project.

System label Ver.2 can also be utilized among programmable controller projects (GX Works3) or among motion controller projects.





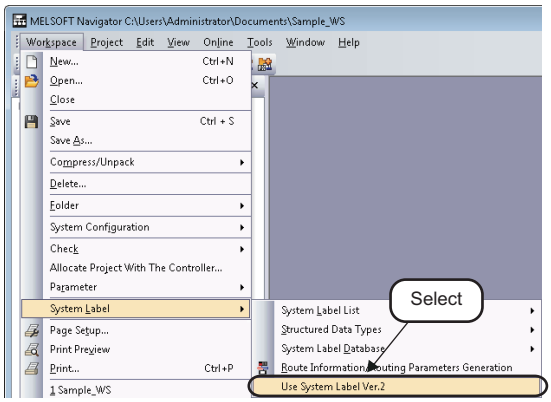
Registering labels as system label Ver.2

Register the global labels which has been set in the programmable controller project (GX Works3) as system label Ver.2, and reflect them to MELSOFT Navigator.

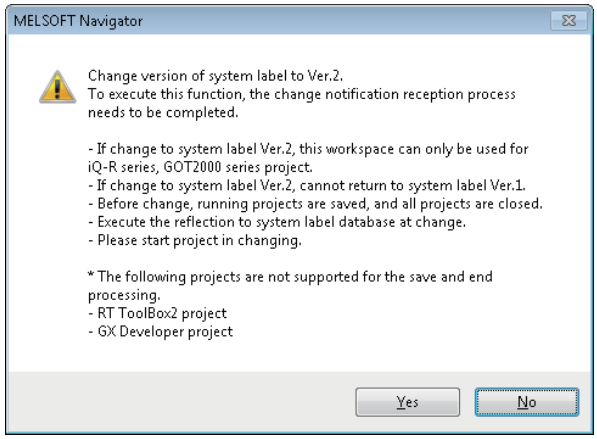
The following is an example of registering global labels of programmable controller project (GX Works3) as system label Ver.2.

The labels of motion controller projects can be registered as system label Ver.2 with the same procedure as described below.

Operating procedure

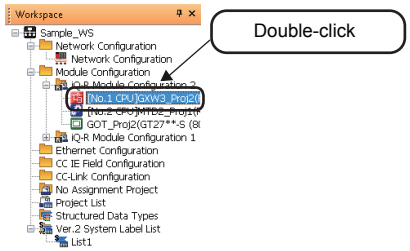


1. Select [Workspace] ⇨ [System Label] ⇨ [Use System Label Ver.2] in the menu bar.


MELSOFT Navigator
Change version of system label to Ver.2.
To execute this function, the change notification reception process needs to be completed.
- If change to system label Ver.2, this workspace can only be used for iQ-R series, GOT2000 series project.
- If change to system label Ver.2, cannot return to system label Ver.1.
- Before change, running projects are saved, and all projects are closed.
- Execute the reflection to system label database at change.
- Please start project in changing.
* The following projects are not supported for the save and end processing.
- RT ToolBox2 project
- GX Developer project
Yes
No

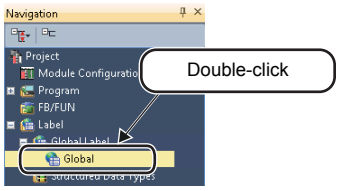
The message shown on the left is displayed.

2. Read the message and click the [Yes] button.



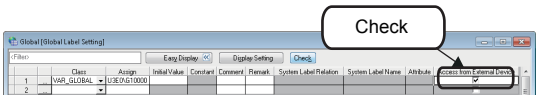
The "Ver.1 System Label List" is changed to "Ver.2 System Label List".

3. Double-click "GXW3_Proj2" on the Workspace window.



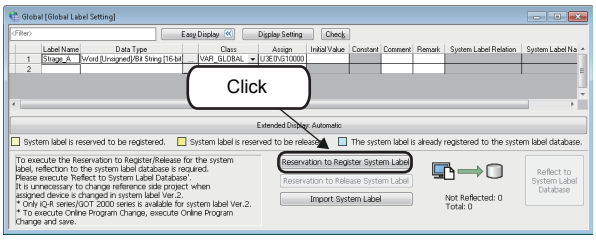
The GX Works3 project is opened.

4. Double-click "Global" on the Navigation window of GX Works3.

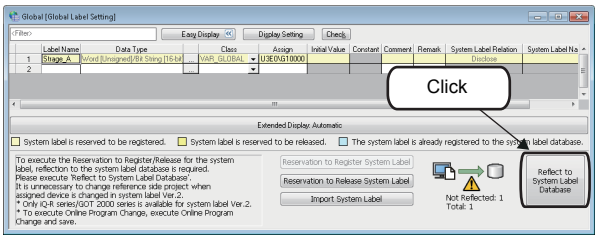


The global label editor is displayed.

5. Select "Access from External Device" of a global label which is to be registered as system label Ver.2.

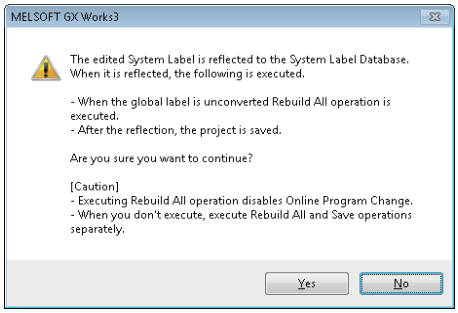


6. Select the global labels to be registered as a system label Ver.2, and click the [Reservation to Register System Label] button.



The cell color of the selected global label turns yellow.

7. Click the [Reflect to System Label Database] button.


MELSOFT GX Works3
The edited System Label is reflected to the System Label Database.
When it is reflected, the following is executed.
- When the global label is unconverted Rebuild All operation is executed.
- After the reflection, the project is saved.
Are you sure you want to continue?
[Caution]
- Executing Rebuild All operation disables Online Program Change.
- When you don't execute, execute Rebuild All and Save operations separately.
Yes
No

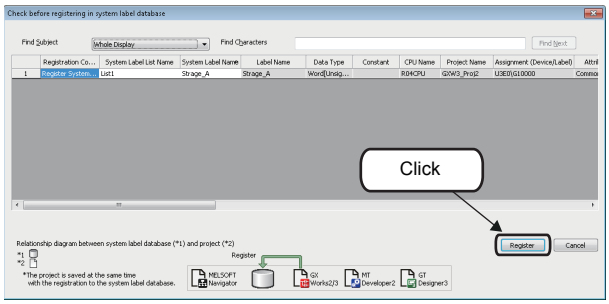
The message shown on the left is displayed.

8. Read the message and click the [Yes] button.

The Build and Save the project are performed.

For details on the compilation, refer to the following manual.

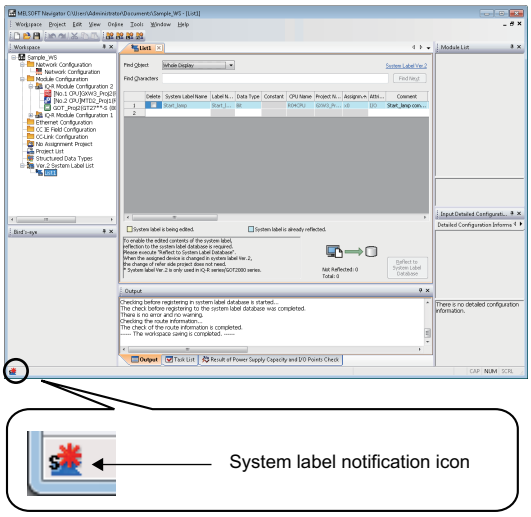
GX Works3 Operating Manual



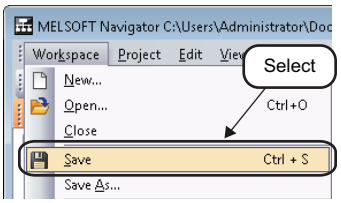
The "Check before registering in system label database" screen is displayed.

9. Click the [Register] button.

The system label Ver.2 is registered and the cell color turns light blue.



The system label notification icon is displayed on the status bar of MELSOFT Navigator.



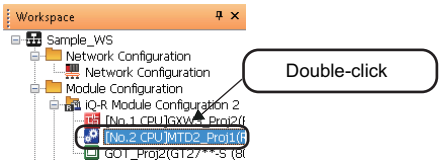
10. Select [Workspace] ⇨ [Save] in the menu bar of MELSOFT Navigator.

The system label Ver.2 created in GX Works3 project is reflected to MELSOFT Navigator.

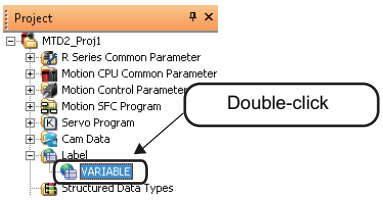
Using system label Ver.2 in motion controller projects

Use system label Ver.2 registered in the programmable controller project (GX Works3) for a motion controller project.

Operating procedure

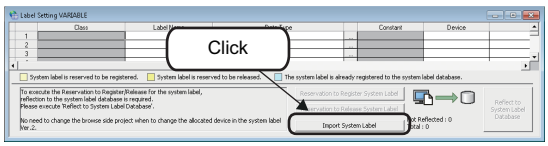


1. Double-click "MTD2_Proj1" on the Workspace window.



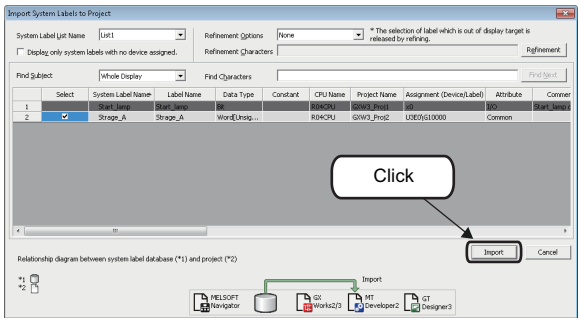
The motion controller project is opened.

2. Double-click "VARIABLE" on the Navigation window of MT Developer2.



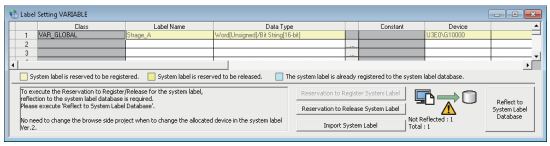
The label setting editor is displayed.

3. Click the [Import System Label] button.



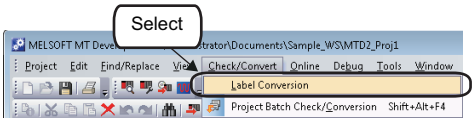
The "Import System Labels to Project" screen is displayed.

4. Select a system label to be imported, and click the [Import] button.



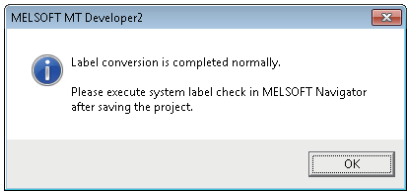
The system label is registered to the label setting editor.

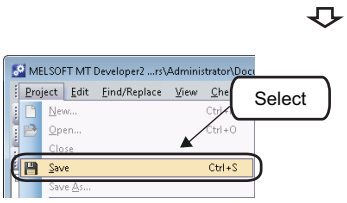
5. Select [Check/Convert] ⇨ [Label Conversion] in the menu bar of MT Developer2.



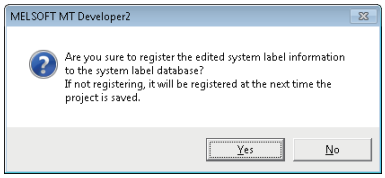
The message shown on the left is displayed.

6. Read the message and click the [OK] button.


MELSOFT MT Developer2
Label conversion is completed normally.
Please execute system label check in MELSOFT Navigator after saving the project.
OK

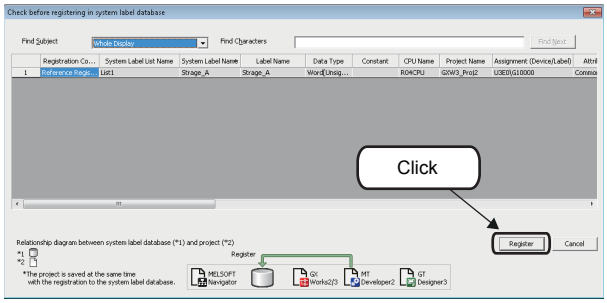


7. Select [Project] ⇨ [Save] in the menu bar.


MELSOFT MT Developer2
Are you sure to register the edited system label information to the system label database?
If not registering, it will be registered at the next time the project is saved.
Yes
No

The message shown on the left is displayed.

8. Read the message and click the [Yes] button.



The "Check before registering in system label database" screen is displayed.

9. Check the [Register] button.

The system label Ver.2 is registered and the cell color turns light blue.

Precautions

When referencing system label Ver.2, assign the devices of which attribute can be referenced from programmable controller projects (GX Works3) or motion controller projects. For details, refer to the Help of MELSOFT Navigator.

Changing devices of system label Ver.2

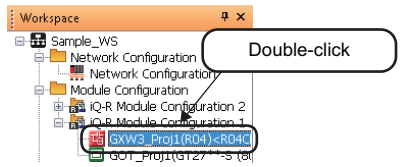
Change the devices assigned for system label Ver.2.

The following is an example of changing system label Ver.2 which is registered in a programmable controller project (GX Works3) and referenced from GOT projects.

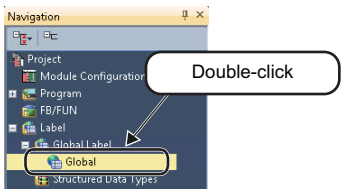
For the system configuration, refer to the following section.

☞ Page 85 Registering system label Ver.2 in MELSOFT Navigator

Operating procedure

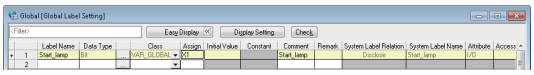


1. Double-click "GXW3_Proj2" on the Workspace window.



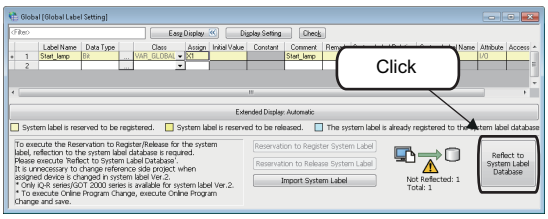
The GX Works3 project is opened.

2. Double-click "Global" on the Navigation window of GX Works3.

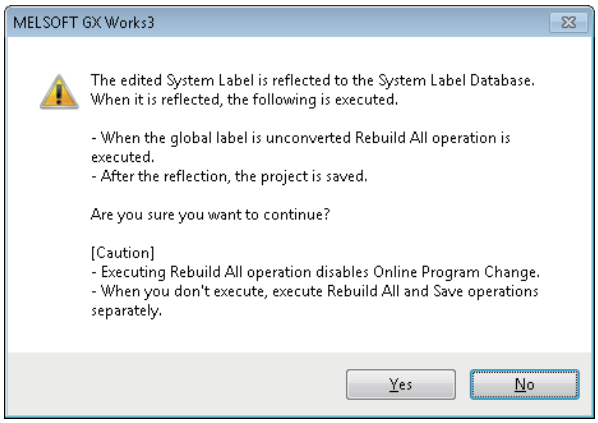


The global label editor is displayed.

3. Change the devices of the registered system label Ver.2.



4. Click the [Reflect to System Label Database] button.


MELSOFT GX Works3
The edited System Label is reflected to the System Label Database.
When it is reflected, the following is executed.
- When the global label is unconverted Rebuild All operation is executed.
- After the reflection, the project is saved.
Are you sure you want to continue?
[Caution]
- Executing Rebuild All operation disables Online Program Change.
- When you don't execute, execute Rebuild All and Save operations separately.
Yes
No

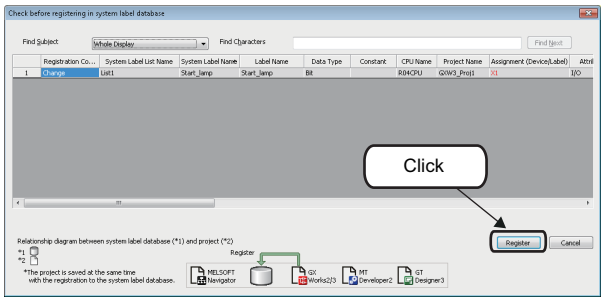
The message shown on the left is displayed.

5. Read the message and click the [Yes] button.

The Build and Save the project are performed.

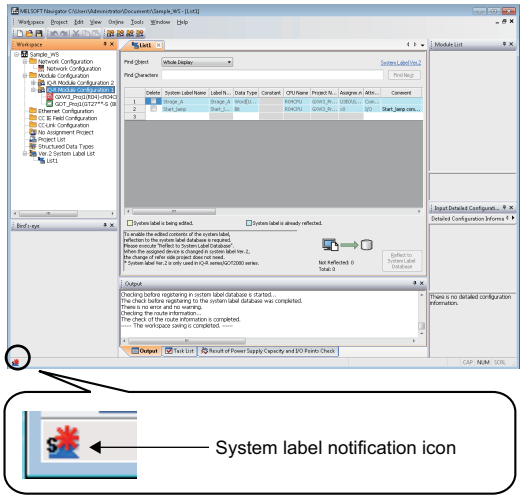
For details on the compilation, refer to the following manual.

GX Works3 Operating Manual

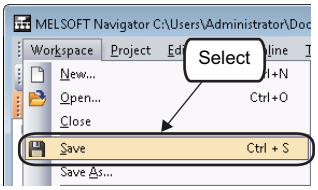


The "Check before registering in system label database" screen is displayed.
Contents to be changed are displayed in red.

6. Check the contents and click the [Register] button.



The system label notification icon is displayed on the status bar of MELSOFT Navigator.



7. Select [Workspace] ⇨ [Save] in the menu bar of MELSOFT Navigator.

The "Ver.2 System Label List" of MELSOFT Navigator is updated.

Point

- After changing the content of system label Ver.2, importing the change of system labels in the projects in which the system labels are referenced is not required.
- The changed content of system label Ver.2 can be checked on the "Display Change History" screen displayed by selecting [Workspace] ⇨ [System Label] ⇨ [System Label Database] ⇨ [Display Change History] in the menu bar of MELSOFT Navigator.

4.2 Using System Label Ver.1

The system label Ver.1 is supported by the following devices.

- MELSEC iQ-R series
- MELSEC iQ-F series
- Q series
- L series
- FX series
- GOT2000 series
- GOT1000 series

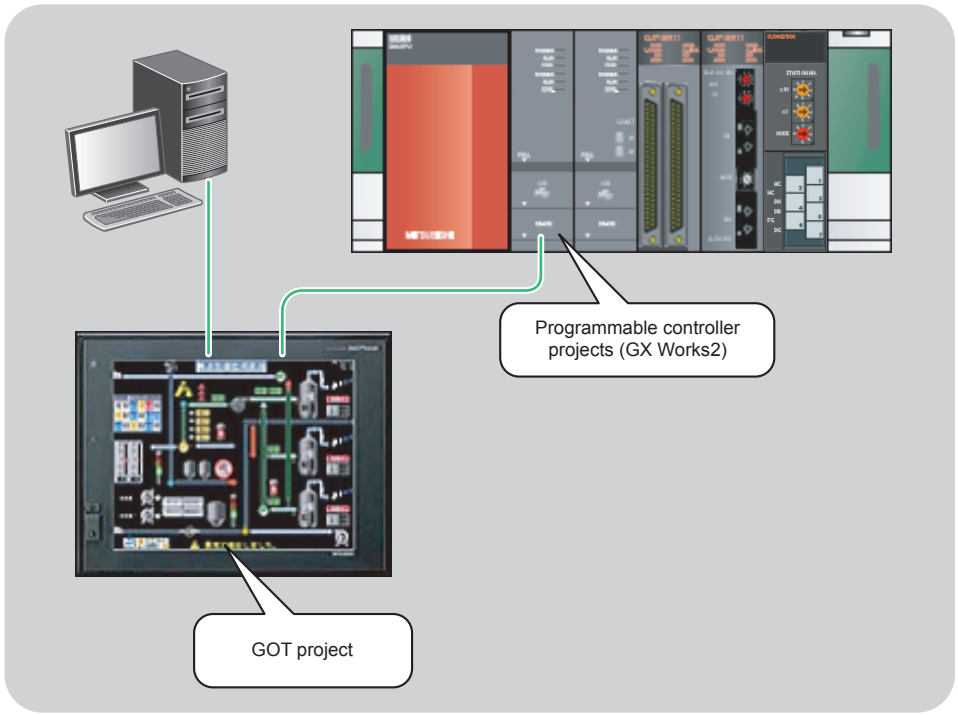
For details on system label Ver.1, refer to the Help of MELSOFT Navigator.

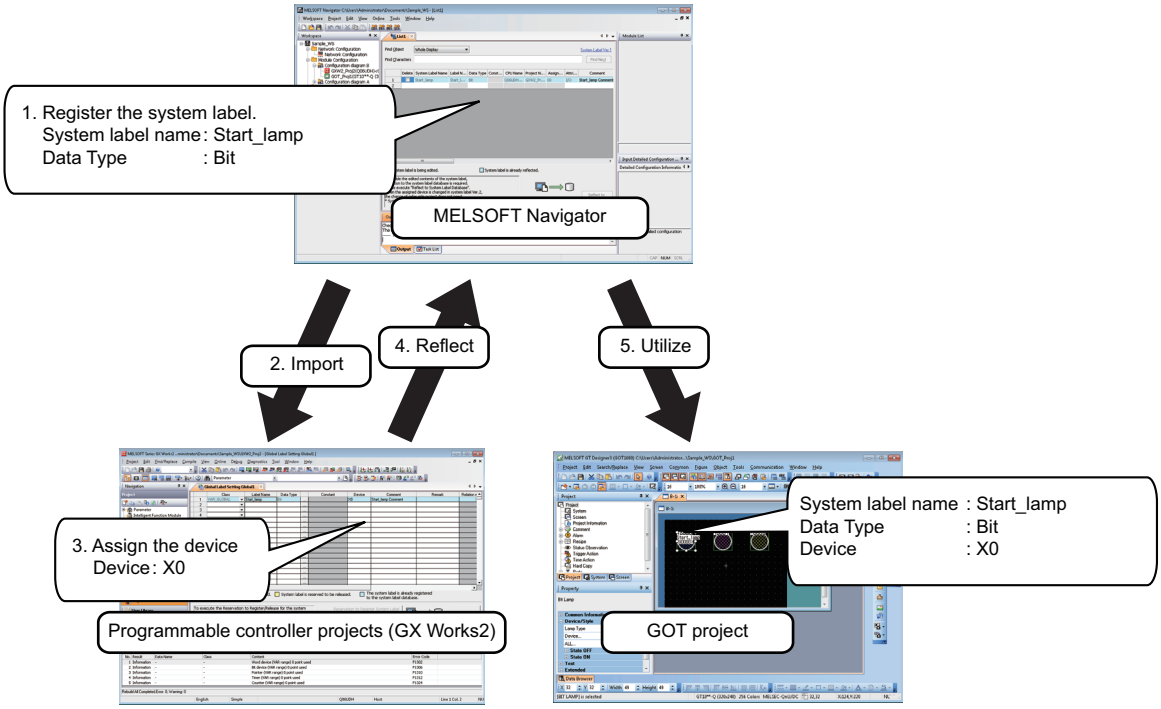
Point

- When a system is configured using only MELSEC iQ-R series and GOT2000 series, system label Ver.1 can be changed to system label Ver.2. However, system label Ver.2 cannot be restored to system label Ver.1.
- For a system configuration in which a device, which is not supported by system label Ver.2, is used, use system label Ver.1.

Registering and Using System Label Ver.1 in MELSOFT Navigator

This section explains a method for using system label Ver.1 with the top-down design method in the following system configuration.

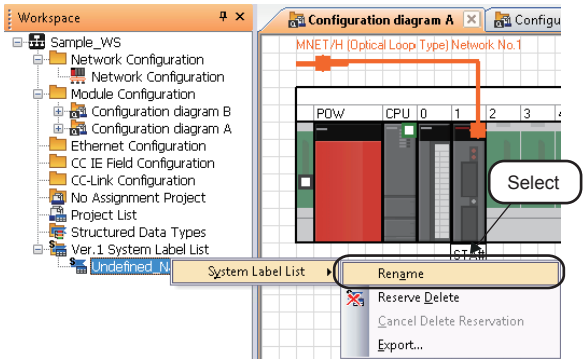




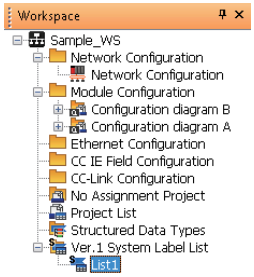
Registering system label Ver.1 in MELSOFT Navigator

Create and register system label Ver.1 in MELSOFT Navigator.

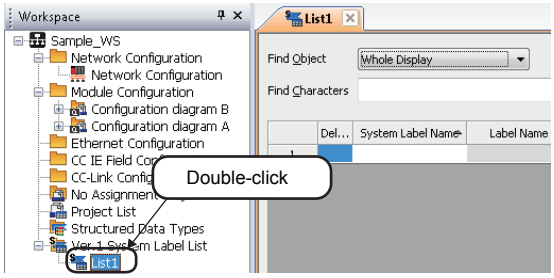
Operating procedure



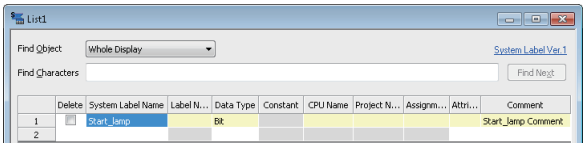
1. Right-click "Undefined_Name" under "Ver.1 System Label List" on the Workspace window, and select [System Label List] ⇨ [Rename] in the shortcut menu.



2. Enter 'List1' to change the system label name.



3. Double-click 'List1' on the Workspace window.

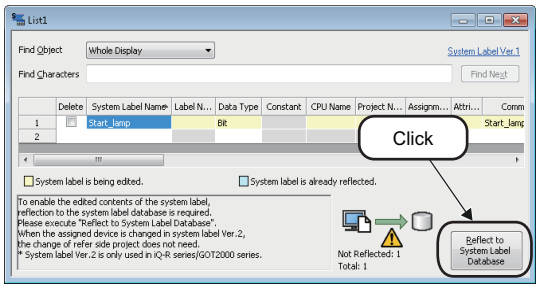


The system label list window is displayed.

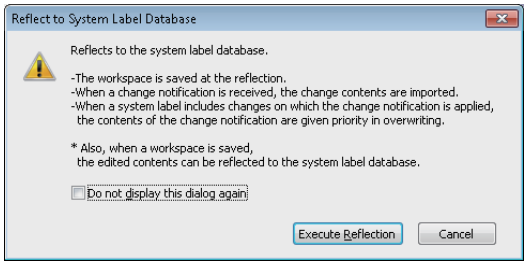
4. Set "System Label Name", "Data Type", and "Comment" for the system label Ver.1 to be registered.

Setting content (sample)

- System Label Name: Start_lamp
- Data Type : Bit
- Comment (option) : Start_lamp comment



5. Click the [Reflect to System Label Database] button.

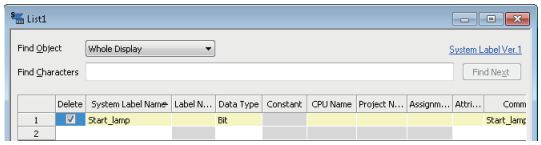

Reflect to System Label Database
Reflects to the system label database.
-The workspace is saved at the reflection.
-When a change notification is received, the change contents are imported.
-When a system label includes changes on which the change notification is applied,
the contents of the change notification are given priority in overwriting.
* Also, when a workspace is saved,
the edited contents can be reflected to the system label database.
Do not display this dialog again
Execute Reflection
Cancel

The message shown on the left is displayed.

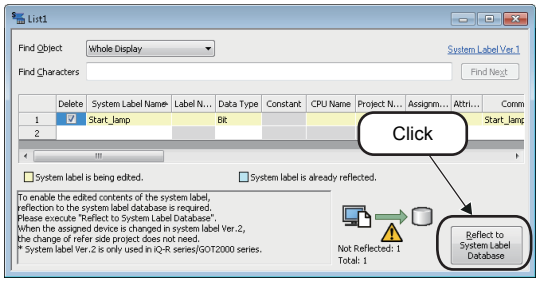
6. Read the message and click the [Execute Reflection] button.

The system label Ver.1 is registered to the system label database and the cell color turns light blue.

■Deleting system label Ver.1



1. Select "Delete" of a system label Ver.1 to be deleted.



2. Click the [Reflect to System Label Database] button.

Point

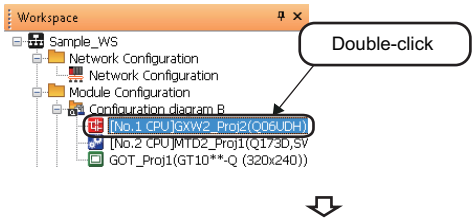
- System labels can also be registered to the system label database by saving the workspace after setting the system label Ver.1 to be registered.
- System label Ver.1 created in CSV format or text format can be imported to the workspace. Also, system labels created in the workspace can be exported in CSV format or text format. For details, refer to the Help of MELSOFT Navigator.

Assigning devices to system label Ver.1

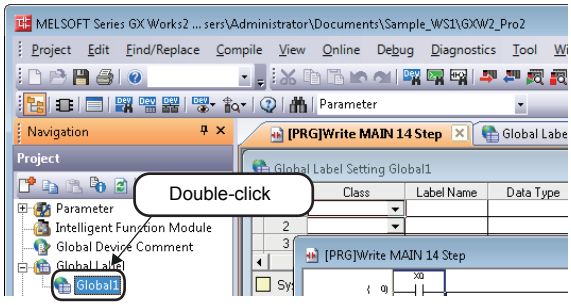
Import system label Ver.1 registered in MELSOFT Navigator to global labels of the programmable controller project (GX Works2) and assign devices to system label Ver.1 so that they can be utilized in other projects.

For importing system label Ver.1 to motion controller project, follow the same procedure as described below.

Operating procedure

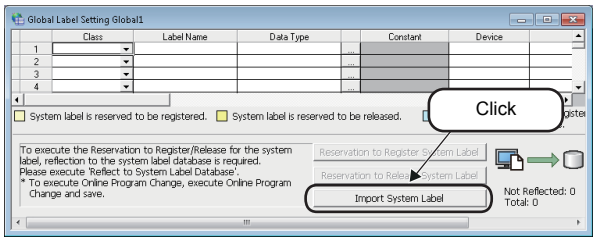


1. Double-click "GXW2_Proj2" on the Workspace window.



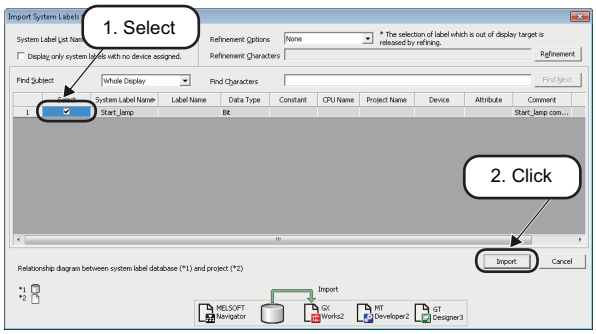
The GX Works2 project is opened.

2. Double-click "Global1" on the Navigation window of GX Works2.


Global Label Setting Global1
Class
Label Name
Data Type
Constant
Device
System label is reserved to be registered.
System label is reserved to be released.
Click
To execute the Reservation to Register/Release for the system label, reflection to the system label database is required.
Please execute 'Reflect to System Label Database'.
* To execute Online Program Change, execute Online Program Change and save.
Reservation to Register System Label
Reservation to Release System Label
Import System Label
Not Reflected: 0
Total: 0

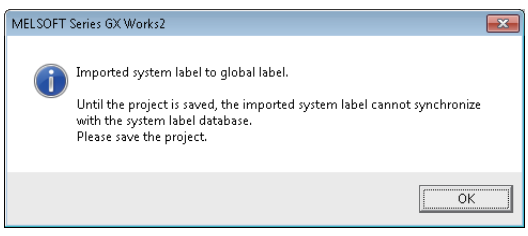
The global label setting editor is displayed.

3. Click the [Import System Label] button.



The "Import System Labels to Project" screen is displayed.

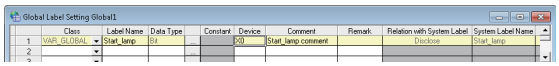
4. Select a system label Ver.1 to be imported, and click the [Import] button.


MELSOFT Series GX Works2
Imported system label to global label.
Until the project is saved, the imported system label cannot synchronize with the system label database.
Please save the project.
OK

The message shown on the left is displayed.

5. Read the message and click the [OK] button.

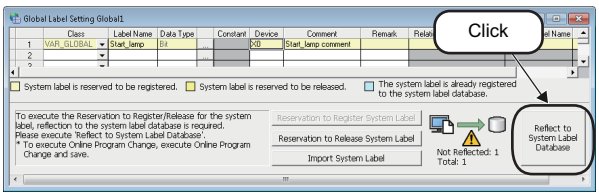
The system label Ver.1 registered in MELSOFT Navigator is registered to global labels of GX Works2.



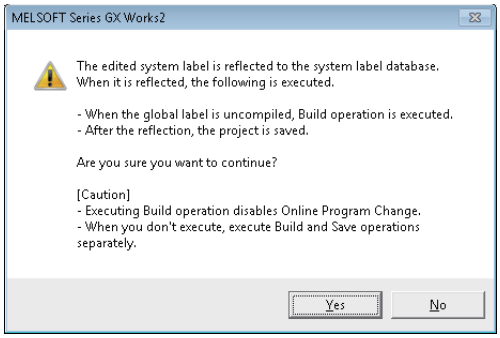
6. Set a device to the imported system label Ver.1.

Setting content (sample)

- Device: X0



7. Click the [Reflect to System Label Database] button.


MELSOFT Series GX Works2
The edited system label is reflected to the system label database.
When it is reflected, the following is executed.
- When the global label is uncompiled, Build operation is executed.
- After the reflection, the project is saved.
Are you sure you want to continue?
[Caution]
- Executing Build operation disables Online Program Change.
- When you don't execute, execute Build and Save operations separately.
Yes
No

The message shown on the left is displayed.

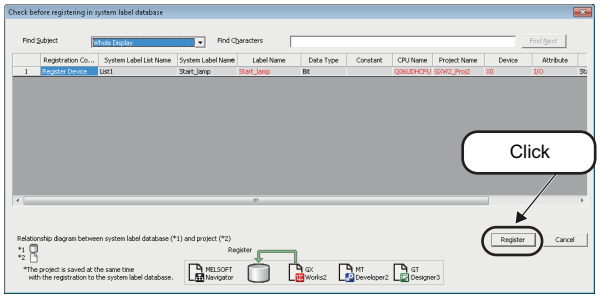
8. Read the message and click the [Yes] button.

The Build and Save the project are performed.

For details on the compilation, refer to the following manuals.

GX Works2 Version 1 Operating Manual (Simple Project)

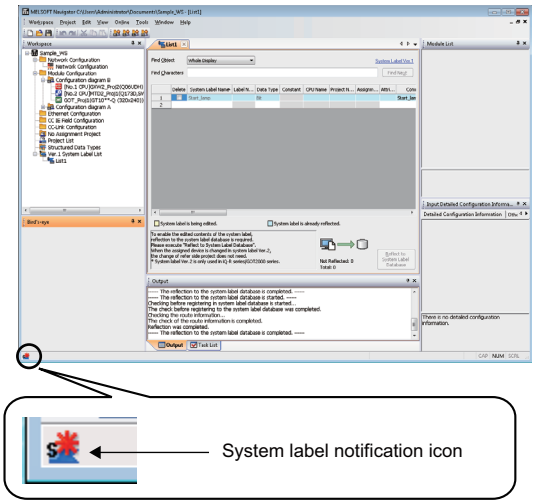
GX Works2 Version 1 Operating Manual (Structured Project)



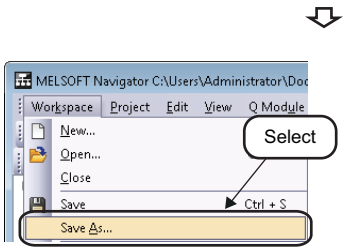
The "Check before registering in system label database" screen is displayed.

Contents to be registered are displayed in red.

9. Check the contents and click the [Register] button.



The system label notification icon is displayed on the status bar of MELSOFT Navigator.



10. Select [Workspace] ⇨ [Save] in the menu bar of MELSOFT Navigator.

The Ver.1 System Label List of MELSOFT Navigator is updated.

Point

After checking registration of system labels to the system label database in the step 9, system label Ver.1 of MELSOFT Navigator can also be updated by selecting [Workspace] ⇨ [System Label] ⇨ [System Label Database] ⇨ [Change Contents of System Label Database] in the menu bar of MELSOFT Navigator and save the project.

Precautions

The system label Ver.1 of GX Works2 imported to each project can be used as global labels.

System label Ver.1 cannot be used when using a project without labels in GX Works2. Change the project type from 'without labels' to 'with labels'. For details of changing project type, refer to the following manual.

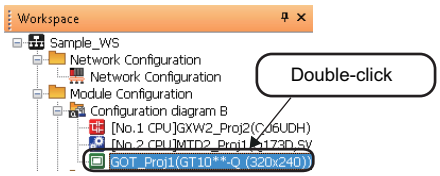
📖 GX Works2 Version 1 Operating Manual (Common)

Using system label Ver.1 in GT Designer3

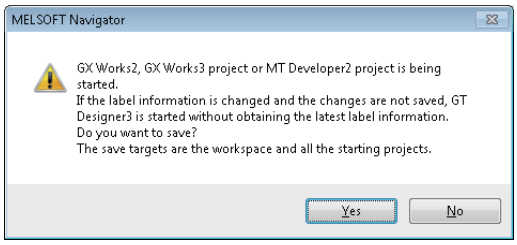
Using system label Ver.1 to which devices are assigned in a programmable controller project (GX Works2) for a GOT project.
In GOT projects, system label names can be specified when setting devices to created objects.
For the method on how to draw objects in GOT projects, refer to the following manuals.

GT Designer3 Version 1 Screen Design Manual (Fundamentals)
GT Designer3 Version 1 Screen Design Manual (Functions)

Operating procedure

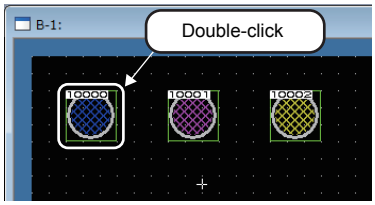


1. Double-click "GOT_Proj1" on the Workspace window.


MELSOFT Navigator
GX Works2, GX Works3 project or MT Developer2 project is being started.
If the label information is changed and the changes are not saved, GT Designer3 is started without obtaining the latest label information.
Do you want to save?
The save targets are the workspace and all the starting projects.
Yes
No

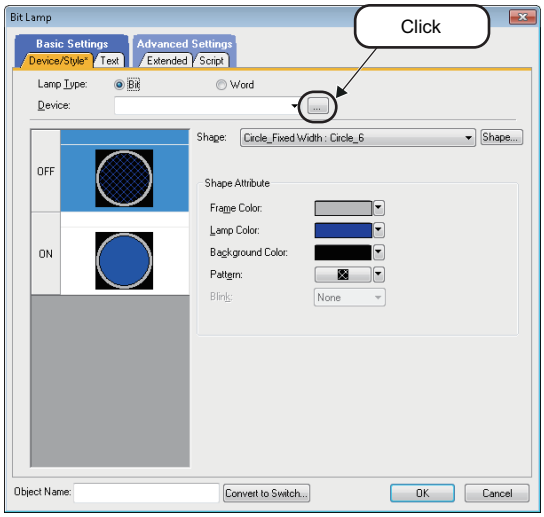
The message shown on the left is displayed when a GX Works2, GX Works3, or MT Developer2 project is open.

2. Read the message and click the [Yes] button.



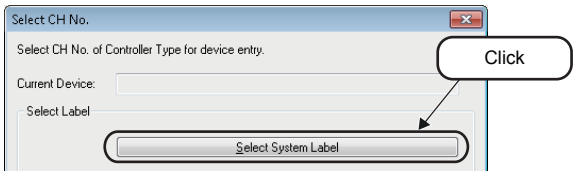
The GOT project is opened.

3. Double-click the created object.



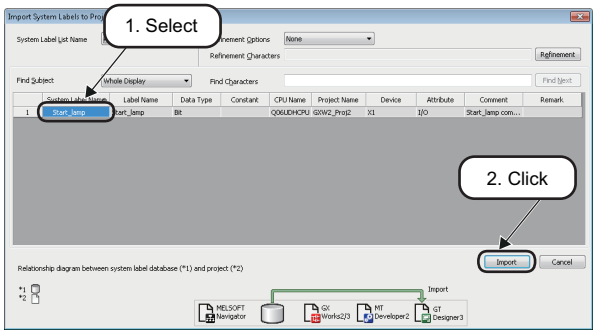
The "Bit Lamp" screen is displayed.

4. Click the [...] button.



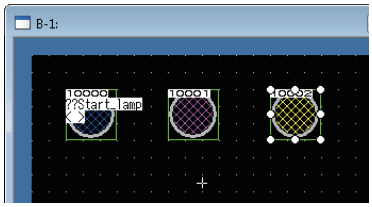
The "Select CH No." screen is displayed.

5. Click the [Select System Label] button.

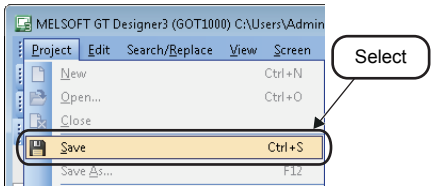


The "Import System Labels to Project" screen is displayed.

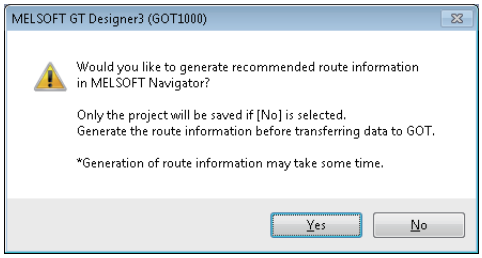
6. Select a system label Ver.1 to be used, and click the [Import] button.



After the settings are completed, the system label name is displayed on the object.

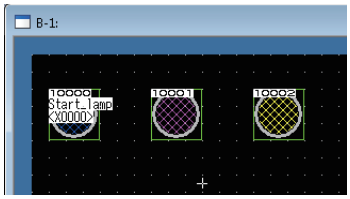


7. Select [Project] ⇨ [Save] in the menu bar.


MELSOFT GT Designer3 (GOT1000)
Would you like to generate recommended route information in MELSOFT Navigator?
Only the project will be saved if [No] is selected.
Generate the route information before transferring data to GOT.
*Generation of route information may take some time.
Yes
No

The message shown on the left is displayed.

8. Read the message and click the [Yes] button.



The system label Ver.1 is ready to be referenced.

Point

- After saving GT Designer3 project by clicking [No] button on the message in the step 8, system label Ver.1 can be used by selecting [Workspace] ⇨ [System Label] ⇨ [Route Information/Routing Parameters] in the menu bar of MELSOFT Navigator to create the route information/routing parameters.
- In GX Works2, when assigning devices to labels by using the Device/label automatic-assign setting function, the devices are assigned from the end of the device range which has been set to PLC parameter. If the devices are outside the applicable range in GT Designer3, the monitor cannot be performed in GOT. Check that the devices to be assigned to system label are within the applicable range.
- An error which occurs when referenced to system label Ver.1 can be checked on the "System Label Update/Check" screen in GT Designer3. For details, refer to the following manual.

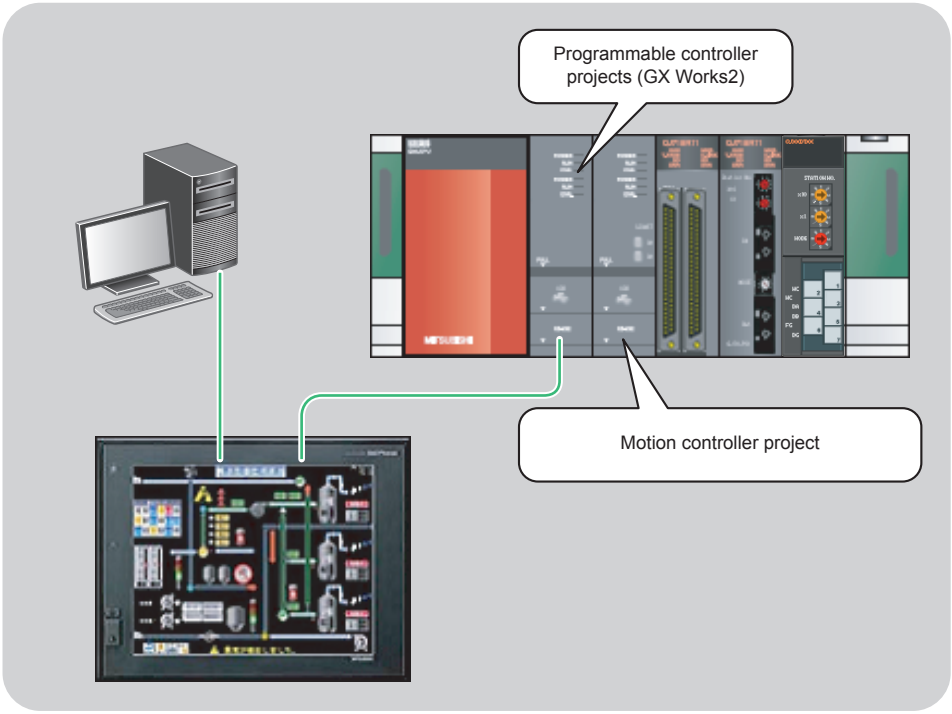
GT Designer3 Version 1 Screen Design Manual (Fundamentals)

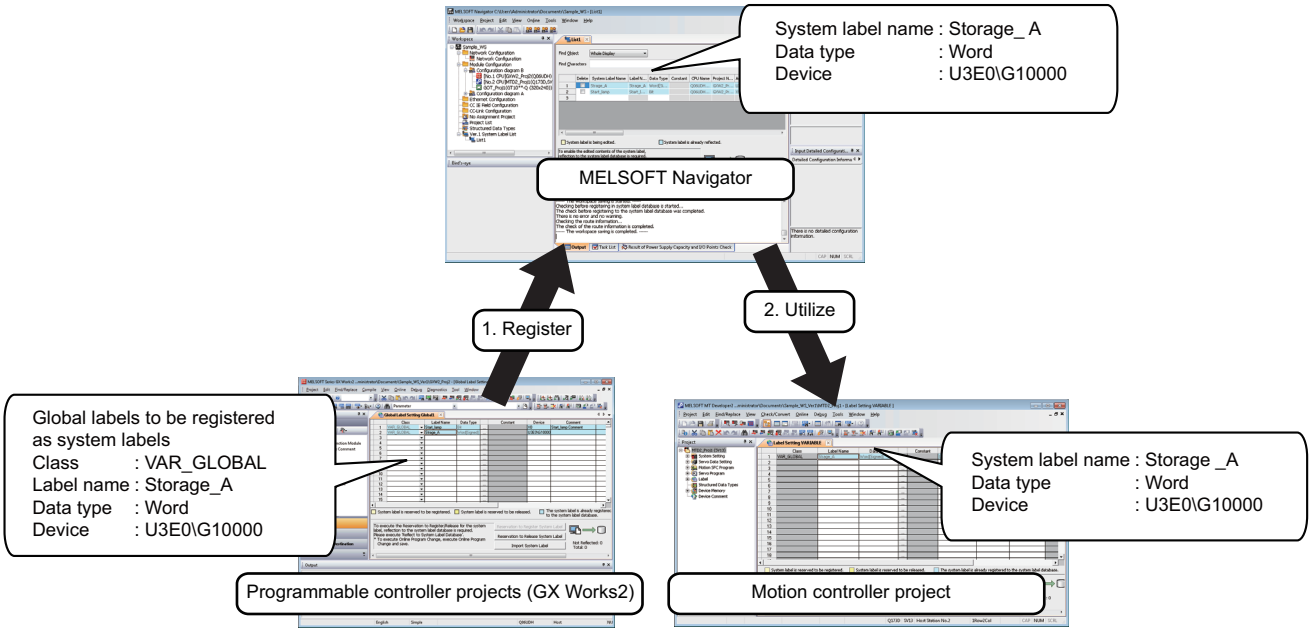
Utilizing Existing Labels as System Label Ver.1

This section explains a method for using system label Ver.1 with the bottom-up design method in the following system configuration.

The following is an example of utilizing system label Ver.1 registered in the programmable controller project (GX Works2) for the motion controller project.

System label Ver.1 can also be utilized among programmable controller projects (GX Works2) or among motion controller projects.





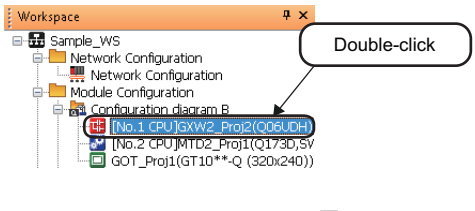
Registering labels as system label Ver.1

Register the global labels, which have been set in the programmable controller project (GX Works2), as system label Ver.1, and reflect them to MELSOFT Navigator.

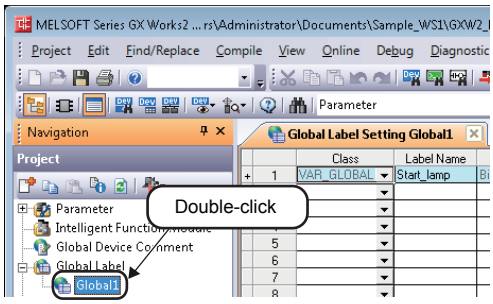
The following is an example of registering global labels of programmable controller project (GX Works2) as system label Ver.1.

The labels of motion controller projects can be registered as system label Ver.1 with the same procedure as described below.

Operating procedure

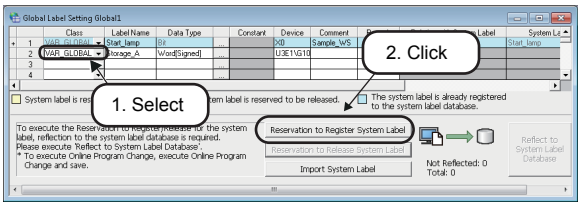


1. Double-click "GXW2_Proj2" on the Workspace window.



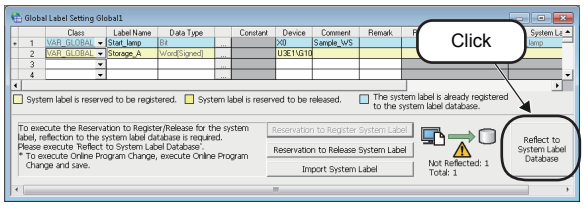
The GX Works2 project is opened.

2. Double-click "Global1" on the Navigation window of GX Works2.



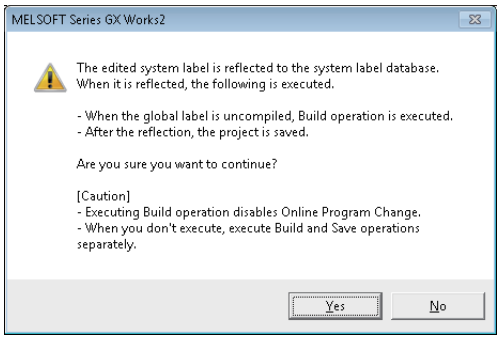
The global label setting editor is displayed.

3. Select the global labels to be registered as a system label Ver.1, and click the [Reservation to Register System Label] button.



The cell color of the selected global label turns yellow.

4. Click the [Reflect to System Label Database] button.


MELSOFT Series GX Works2
The edited system label is reflected to the system label database.
When it is reflected, the following is executed.
- When the global label is uncompiled, Build operation is executed.
- After the reflection, the project is saved.
Are you sure you want to continue?
[Caution]
- Executing Build operation disables Online Program Change.
- When you don't execute, execute Build and Save operations separately.
Yes
No

The message shown on the left is displayed.

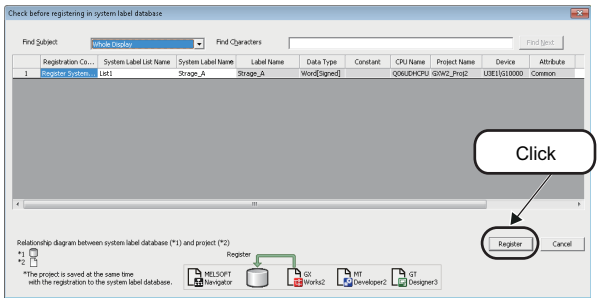
5. Read the message and click the [Yes] button.

The Build and Save the project are performed.

For details on the compilation, refer to the following manuals.

📖 GX Works2 Version 1 Operating Manual (Simple Project)

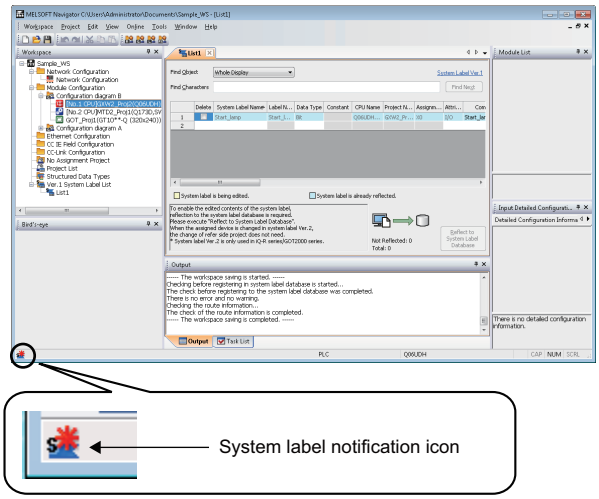
📖 GX Works2 Version 1 Operating Manual (Structured Project)



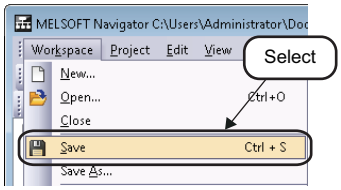
The "Check before registering in system label database" screen is displayed.

6. Click the [Register] button.

The system label Ver.1 is registered and the cell color turns light blue.



The system label notification icon is displayed on the status bar of MELSOFT Navigator.



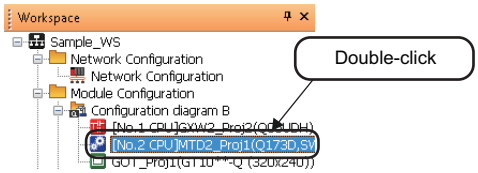
7. Select [Workspace] ⇨ [Save] in the menu bar of MELSOFT Navigator.

The system label Ver.1 created in GX Works2 project is reflected to MELSOFT Navigator.

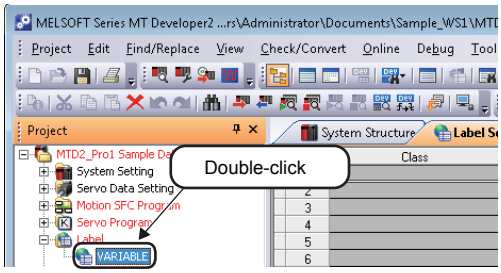
Using system label Ver.1 in motion controller projects

Use system label Ver.1 registered in the programmable controller project (GX Works2) for a motion controller project.

Operating procedure

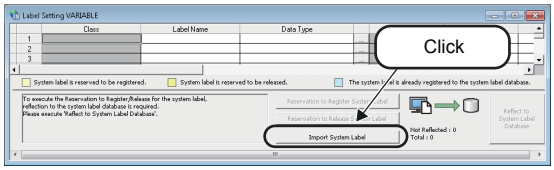


1. Double-click "MTD2_Proj1" on the Workspace window.



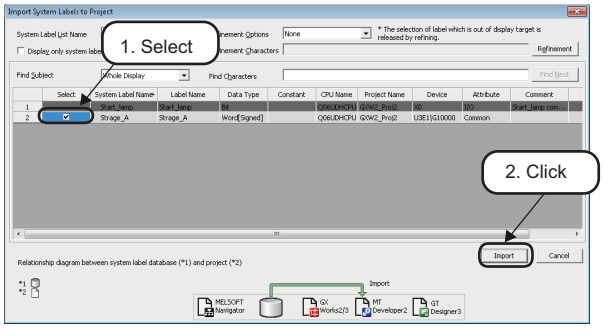
The motion controller project is opened.

2. Double-click "VARIABLE" on the Navigation window of MT Developer2.



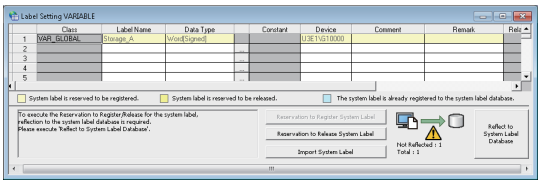
The label setting editor is displayed.

3. Click the [Import System Label] button.

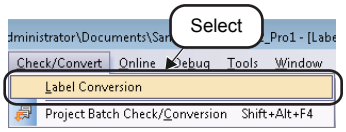


The "Import System Labels to Project" screen is displayed.

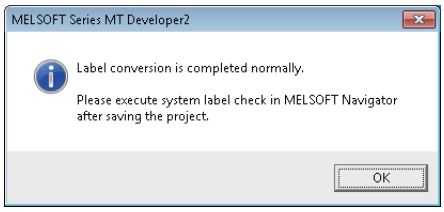
4. Select a system label Ver.1 to be imported, and click the [Import] button.



The system label Ver.1 is registered to the label setting editor.

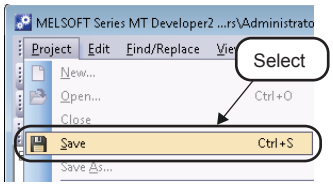


5. Select [Check/Convert] ⇨ [Label Conversion] in the menu bar of MT Developer2.


MELSOFT Series MT Developer2
Label conversion is completed normally.
Please execute system label check in MELSOFT Navigator after saving the project.
OK

The message shown on the left is displayed.

6. Read the message and click the [OK] button.



7. Select [Project] ⇨ [Save] in the menu bar.

Precautions

When referring to system label Ver.1, assign the device with attribute which can be referenced from a programmable controller project (GX Works2) or a motion controller project. For details, refer to the Help of MELSOFT Navigator.

Changing devices of system label Ver.1

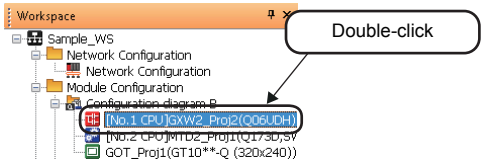
Change the devices assigned for system label Ver.1.

The following is an example of registering system label Ver.1 which is registered in a programmable controller project (GX Works2) and referenced from GOT projects.

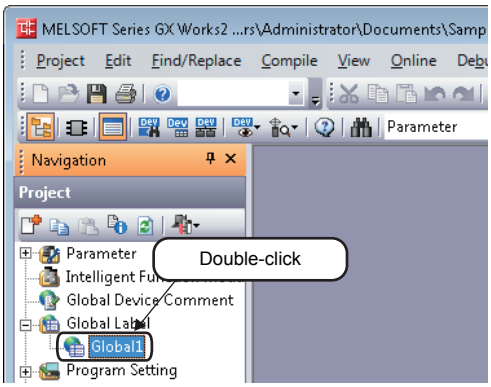
For the system configuration, refer to the following section.

☞ Page 104 Registering and Using System Label Ver.1 in MELSOFT Navigator

Operating procedure

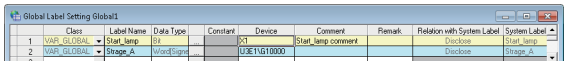


1. Double-click "GXW2_Proj2" on the Workspace window.



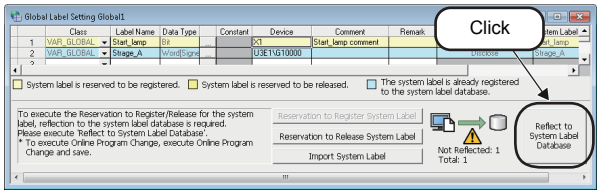
The GX Works2 project is opened.

2. Double-click "Global1" on the Navigation window of GX Works2.

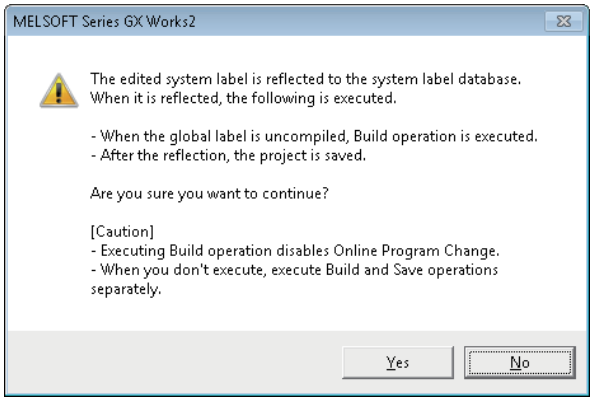


The global label setting editor is displayed

3. Change the devices of registered system label Ver.1.


Global Label Setting Global1
Click
System label is reserved to be registered.
System label is reserved to be released.
The system label is already registered to the system label database.
To execute the Reservation to Register/Release for the system label, reflection to the system label database is required. Please execute 'Reflect to System Label Database'.
* To execute Online Program Change, execute Online Program Change and save.
Reservation to Register System Label
Reservation to Release System Label
Import System Label
Not Reflected: 1
Total: 1
Reflect to System Label Database

4. Click the [Reflect to System Label Database] button.


MELSOFT Series GX Works2
The edited system label is reflected to the system label database.
When it is reflected, the following is executed.
- When the global label is uncompiled, Build operation is executed.
- After the reflection, the project is saved.
Are you sure you want to continue?
[Caution]
- Executing Build operation disables Online Program Change.
- When you don't execute, execute Build and Save operations separately.
Yes
No

The message shown on the left is displayed.

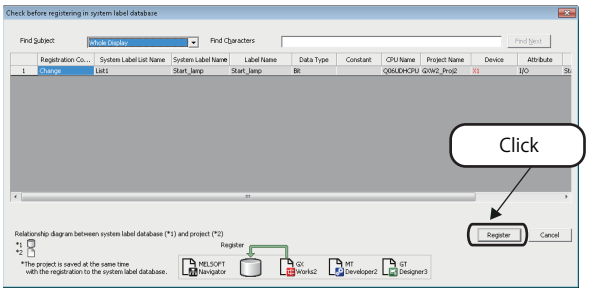
5. Read the message and click the [Yes] button.

The Build and Save the project are performed.

For details on the compilation, refer to the following manuals.

📖 GX Works2 Version 1 Operating Manual (Simple Project)

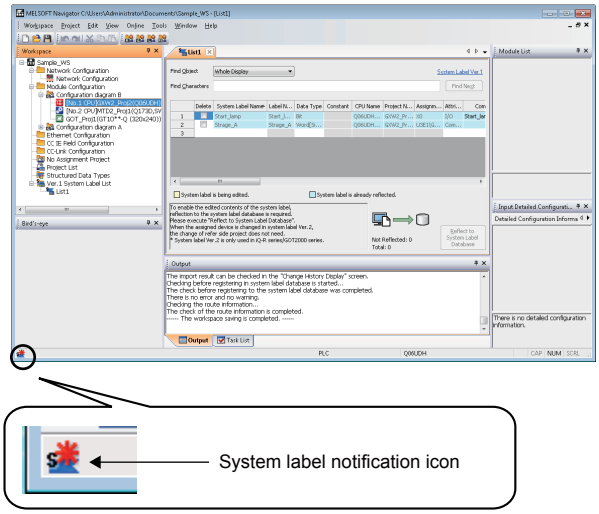
📖 GX Works2 Version 1 Operating Manual (Structured Project)



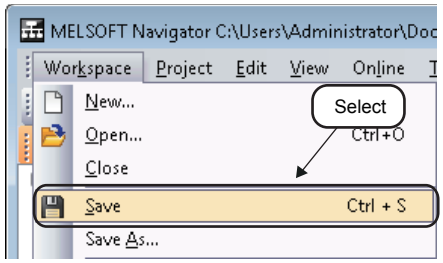
The "Check before registering in system label database" screen is displayed.

Contents to be changed are displayed in red.

6. Check the contents and click the [Register] button.

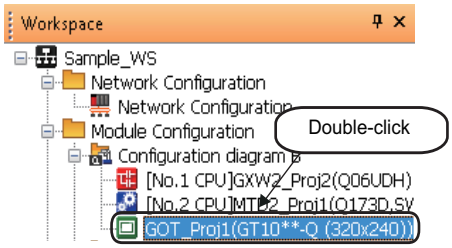


The system label notification icon is displayed on the status bar of MELSOFT Navigator.

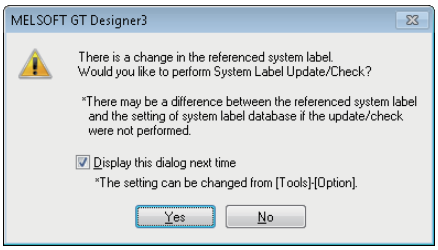


7. Select [Workspace] ⇨ [Save] in the menu bar of MELSOFT Navigator.

The system label of GX Works2 project is reflected to MELSOFT Navigator.

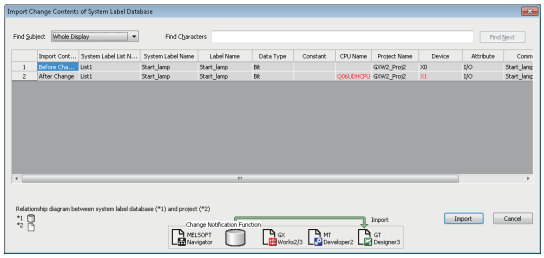


8. Double-click "GOT_Proj1" on the Workspace window.


MELSOFT GT Designer3
There is a change in the referenced system label.
Would you like to perform System Label Update/Check?
*There may be a difference between the referenced system label and the setting of system label database if the update/check were not performed.
Display this dialog next time
*The setting can be changed from [Tools]-[Option].
Yes
No

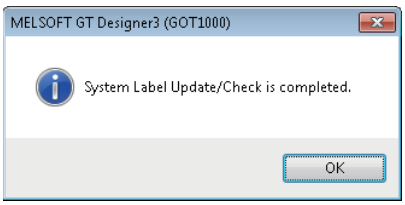
The GOT project is opened and the message shown on the left is displayed.

9. Read the message and click the [Yes] button.



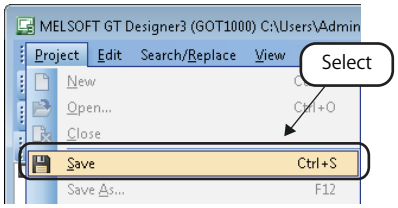
The "Change Contents of System Label Database" screen is displayed.

10. Check the content and click the [Import] button.



The message shown on the left is displayed.

11. Click the [OK] button.



The changed content in GX Works2 is reflected to GT Designer3.

12. Select [Project] ⇨ [Save] in the menu bar.

Point

The changed content of system label Ver.1 can be checked on the "Display Change History" screen displayed by selecting [Workspace] ⇨ [System Label] ⇨ [System Label Database] ⇨ [Display Change History] in the menu bar of MELSOFT Navigator.

4.3 Using System Labels on Other Personal Computer

This section explains a method for utilizing created system labels on other personal computers than where the source workspace exists.

When utilizing system labels on other personal computer, create a workspace in MELSOFT Navigator, copy it to a media such as USB memory, and then edit the project.

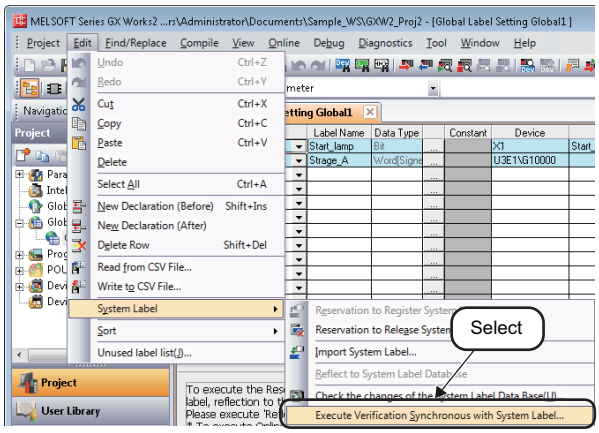
After editing the project on other personal computer, importing the project to the original workspace and performing verification and synchronization are required. To import the project, the versions of the system labels in the workspace must be the same as that of the import source project. For details on the Import function, refer to the following section.

☞ Page 74 Utilizing existing projects (import)

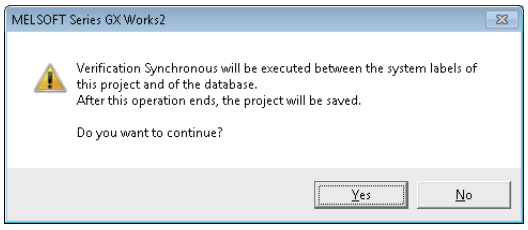
The following is an example when performing the verification and synchronization function on the system labels of programmable controller project (GX Works2).

When performing the verification and synchronization function on motion controller projects, follow the same procedure as described below.

Operating procedure

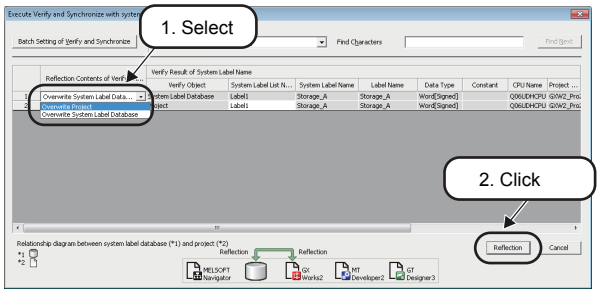


1. Select [Edit] ⇨ [System Label] ⇨ [Execute Verification Synchronous with System Label] in the menu bar of GX Works2.


MELSOFT Series GX Works2
Verification Synchronous will be executed between the system labels of this project and of the database.
After this operation ends, the project will be saved.
Do you want to continue?
Yes
No

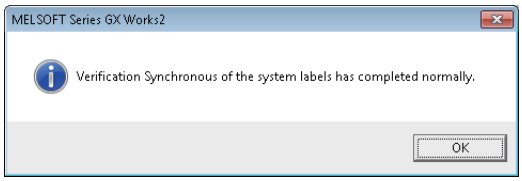
The message shown on the left is displayed.

2. Read the message and click the [Yes] button.



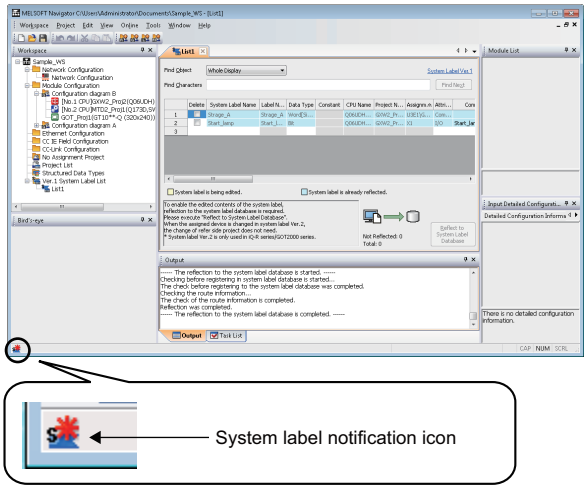
The "Execute Verification Synchronous with system label" screen is displayed.

3. Select an item under "Reflection Contents of Verification Synchronous", and click the [Reflection] button.

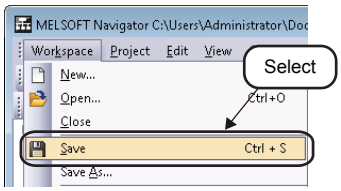


The message shown on the left is displayed.

4. Read the message and click the [OK] button.



The system label notification icon is displayed on the status bar of MELSOFT Navigator.



5. Select [Workspace] ⇨ [Save] in the menu bar of MELSOFT Navigator.

The system label database of MELSOFT Navigator is updated.

4.4 Checking System Labels

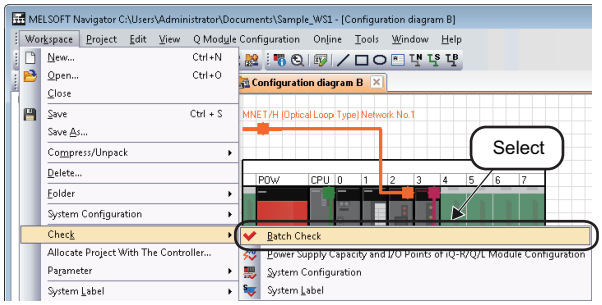
Check the conditions such as; module configurations of created system configuration, project allocation status, and system label consistency in batch.

A project in which the changed content of system labels is not imported can also be checked.

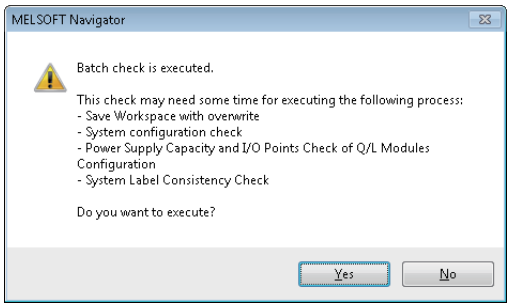
For details on importing the changed content, refer to the following section.

☞ Page 84 Using System Label Ver.2

Operating procedure

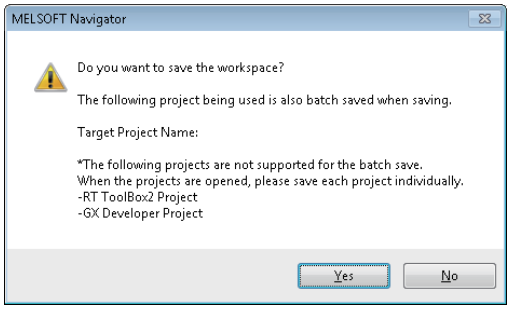


1. Select [Workspace] ⇨ [Check] ⇨ [Batch Check] in the menu bar.


MELSOFT Navigator
Batch check is executed.
This check may need some time for executing the following process:
- Save Workspace with overwrite
- System configuration check
- Power Supply Capacity and I/O Points Check of Q/L Modules Configuration
- System Label Consistency Check
Do you want to execute?
Yes
No

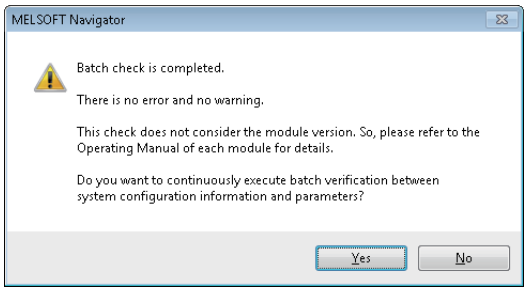
The message shown on the left is displayed.

2. Read the message and click the [Yes] button.


MELSOFT Navigator
Do you want to save the workspace?
The following project being used is also batch saved when saving.
Target Project Name:
*The following projects are not supported for the batch save.
When the projects are opened, please save each project individually.
-RT ToolBox2 Project
-GX Developer Project
Yes
No

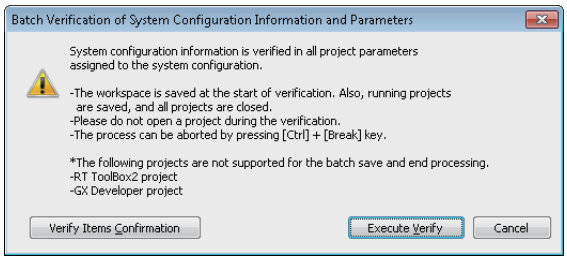
The message shown on the left is displayed when a project is open in the workspace.

3. Read the message and click the [Yes] button.


MELSOFT Navigator
Batch check is completed.
There is no error and no warning.
This check does not consider the module version. So, please refer to the Operating Manual of each module for details.
Do you want to continuously execute batch verification between system configuration information and parameters?
Yes
No

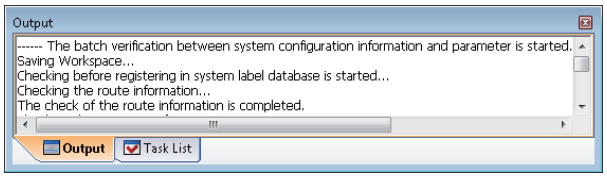
The batch check is completed, and the message shown on the left is displayed.

4. When performing the batch verification of parameters, click the [Yes] button.


Batch Verification of System Configuration Information and Parameters
System configuration information is verified in all project parameters assigned to the system configuration.
-The workspace is saved at the start of verification. Also, running projects are saved, and all projects are closed.
-Please do not open a project during the verification.
-The process can be aborted by pressing [Ctrl] + [Break] key.
*The following projects are not supported for the batch save and end processing.
-RT ToolBox2 project
-GX Developer project
Verify Items Confirmation
Execute Verify
Cancel

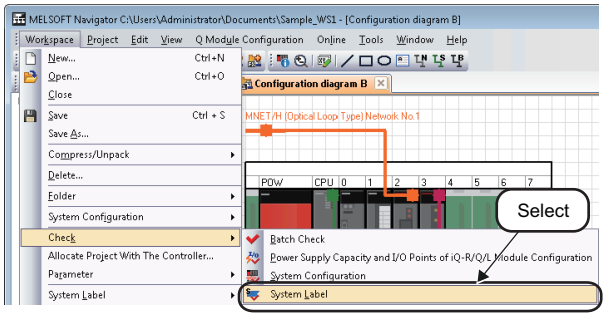
The message shown on the left is displayed.

5. Read the message and click the [Execute Verify] button.

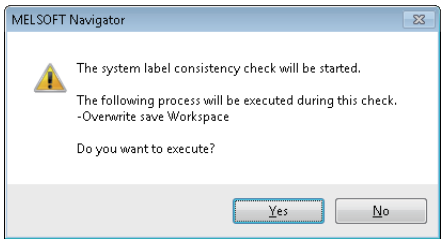

Output
------ The batch verification between system configuration information and parameter is started.
Saving Workspace...
Checking before registering in system label database is started...
Checking the route information...
The check of the route information is completed.
Output
Task List

Verification is performed.
Error or Warning is displayed on the Output window when the verification result contains an error. Check the error description on the Task List window and correct the error.

■Checking only system label consistency

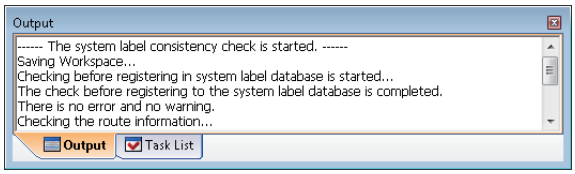


1. Select [Workspace] ⇨ [Check] ⇨ [System Label] in the menu bar.


MELSOFT Navigator
The system label consistency check will be started.
The following process will be executed during this check.
-Overwrite save Workspace
Do you want to execute?
Yes
No

The message shown on the left is displayed.

2. Read the message and click the [Yes] button.


Output
------ The system label consistency check is started. ------
Saving Workspace...
Checking before registering in system label database is started...
The check before registering to the system label database is completed.
There is no error and no warning.
Checking the route information...
Output
Task List

The system label consistency check is performed.
Error or Warning is displayed on the Output window when the check result contains an error. Check the error description on the Task List window and correct the error.

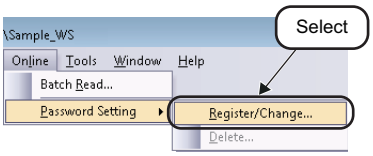
5 CREATING SYSTEM BACKUP DATA

This chapter explains the methods for reading and saving programmable controller project, motion controller project, and GOT project in batch using MELSOFT Navigator.
This functions is not supported by MELSEC iQ-F series.

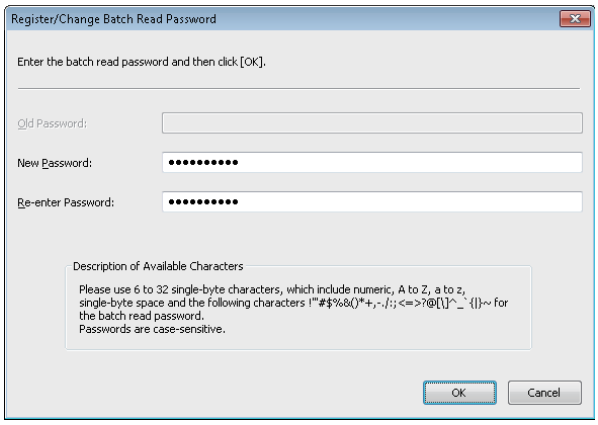
5.1 Setting Batch Read Password

Set a batch read password. This function limits users who can perform the batch read function.
Change the batch read password on the "Register/Change Batch Read Password" screen.

Operating procedure



1. Select [Online] ⇨ [Password Setting] ⇨ [Register/Change] in the menu bar.

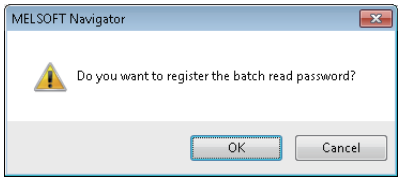

Register/Change Batch Read Password
Enter the batch read password and then click [OK].
Old Password:
New Password:
Re-enter Password:
Description of Available Characters
Please use 6 to 32 single-byte characters, which include numeric, A to Z, a to z, single-byte space and the following characters !"#$%&()*+,-./:;<=>?@[\]^_`{|}~ for the batch read password.
Passwords are case-sensitive.
OK
Cancel

The "Register/Change Batch Read Password" screen is displayed.

2. Enter the password for "New Password" and "Re-enter Password", and click the [OK] button.

Setting content (sample)

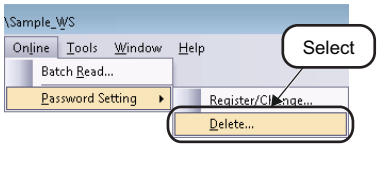
- New Password : MITSUBISHI09
- Re-enter Password: MITSUBISHI09



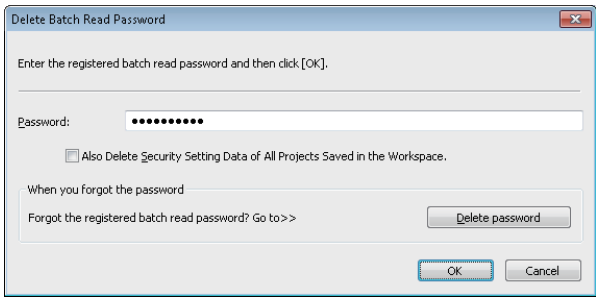
The message shown on the left is displayed.

3. Read the message and click the [OK] button.

■Deleting batch read password

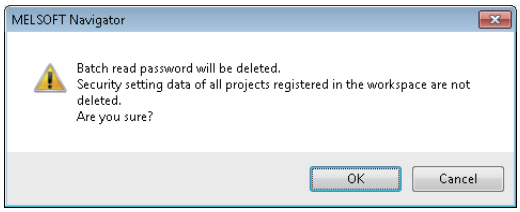


1. Select [Online] ⇨ [Password Setting] ⇨ [Delete] in the menu bar.


Delete Batch Read Password
Enter the registered batch read password and then click [OK].
Password:
Also Delete Security Setting Data of All Projects Saved in the Workspace.
When you forgot the password
Forgot the registered batch read password? Go to>>
Delete password
OK
Cancel

The "Delete Batch Read Password" screen is displayed.

2. Enter the registered batch read password, and click the [OK] button.


MELSOFT Navigator
Batch read password will be deleted.
Security setting data of all projects registered in the workspace are not deleted.
Are you sure?
OK
Cancel

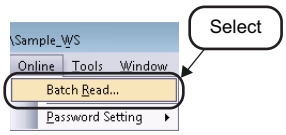
The message shown on the left is displayed.

3. Read the message and click the [OK] button.

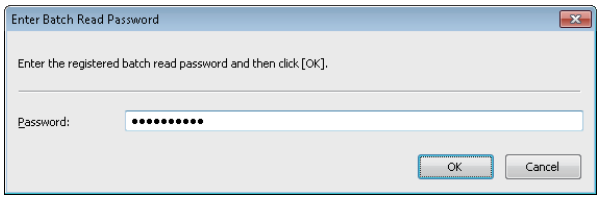
5.2 Performing Batch Read Function

Read projects from controllers in batch and save them as backup data.

Operating procedure



1. Select [Online] ⇨ [Batch Read] in the menu bar.

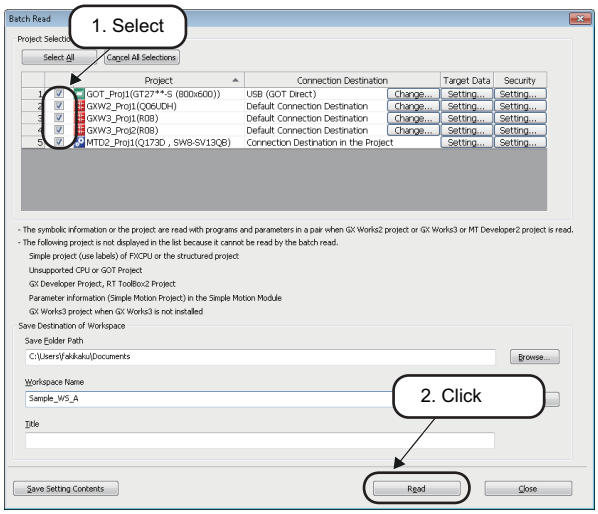


The "Enter Batch Read Password" screen is displayed.

2. Enter the registered batch read password, and click the [OK] button.

Setting content (sample)

- Password: MITSUBISHI09

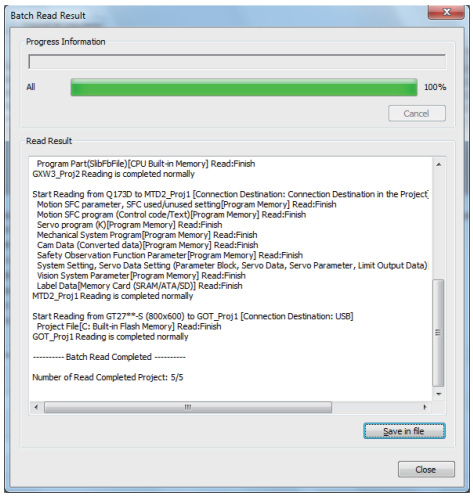


The "Batch Read" screen is displayed.

3. Select the projects to be read, and click the [Read] button.

Setting content (sample)

- Selected Project: GOT_Proj1, GXW2_Proj1, GXW3_Proj1, GXW3_Proj2, MTD2_Proj1
- Workspace Name: Sample_WS_A

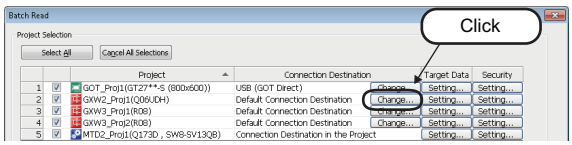


The batch read is completed, and the "Batch Read Result" screen is displayed.

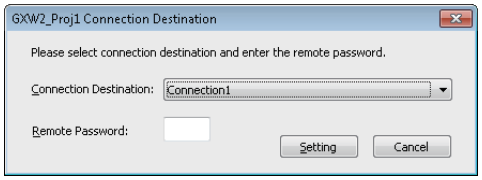
The result is displayed under "Read Result".

■Changing connection destination

The following is an example of changing the connection destination of the programmable controller project (GX Works2).
When specifying programmable controller project (GX Works3) data, motion controller project data, or GOT project data, follow the same procedure as shown below.



1. Click the [Change] button under "Connection Destination" on the "Batch Read" screen.



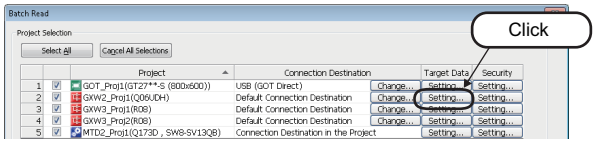
The screen to set the connection destination is displayed.

2. Select a connection destination, and click the [Set] button.

If a remote password is set for the selected connection destination, enter 4-digit remote password. For details on the remote password, refer to the following manual.
GX Works2 Version 1 Operating Manual (Common)

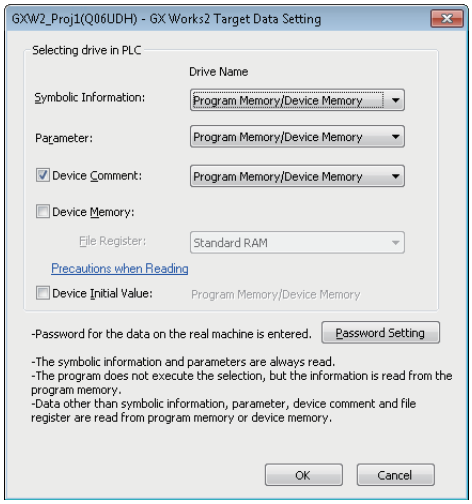
■Specifying data to be read

The following is an example of specifying a programmable controller project (GX Works2) data.
When specifying programmable controller project (GX Works3) data, motion controller project data, or GOT project data, follow the same procedure as shown below.

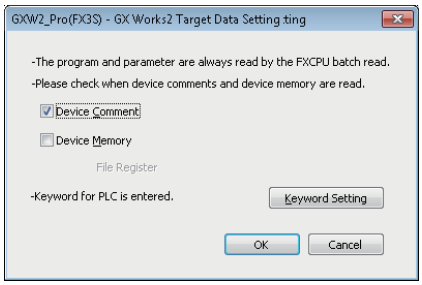


1. Click the [Setting] button under "Target Data" on the "Batch Read" screen.

<Q series/L series>


GXW2_Proj1(Q06UDH) - GX Works2 Target Data Setting
Selecting drive in PLC
Drive Name
Symbolic Information:
Program Memory/Device Memory
Parameter:
Program Memory/Device Memory
Device Comment:
Program Memory/Device Memory
Device Memory:
File Register:
Standard RAM
Precautions when Reading
Device Initial Value:
Program Memory/Device Memory
-Password for the data on the real machine is entered.
Password Setting
-The symbolic information and parameters are always read.
-The program does not execute the selection, but the information is read from the program memory.
-Data other than symbolic information, parameter, device comment and file register are read from program memory or device memory.
OK
Cancel

<FX series>


GXW2_Pro(FX3S) - GX Works2 Target Data Setting ting
-The program and parameter are always read by the FXCPU batch read.
-Please check when device comments and device memory are read.
Device Comment
Device Memory
File Register
-Keyword for PLC is entered.
Keyword Setting
OK
Cancel

The screen to set the target data is displayed.

2. Specify data to be read, and click then [OK] button.

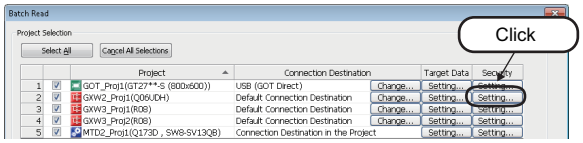
For details, refer to the Help of MELSOFT Navigator.

■When the security is set for projects

When the security is set for projects of controllers, reset the security before performing the batch read function.

The following is an example of resetting the security of a programmable controller project (GX Works2).

When specifying programmable controller project (GX Works3) data, motion controller project data, or GOT project data, follow the same procedure as shown below.



GXW2_Proj1 Security
Please enter the user name and password for authenticating the security set project.
User name of Administrator authority and its password are required for batch read.
User Name:
MITSUBISHITARO
Password:
OK
Cancel

1. Click the [Setting] button under "Security" on the "Batch Read" screen.

The screen to set the security is displayed.

2. Enter a user name and a password, and click the [OK] button.

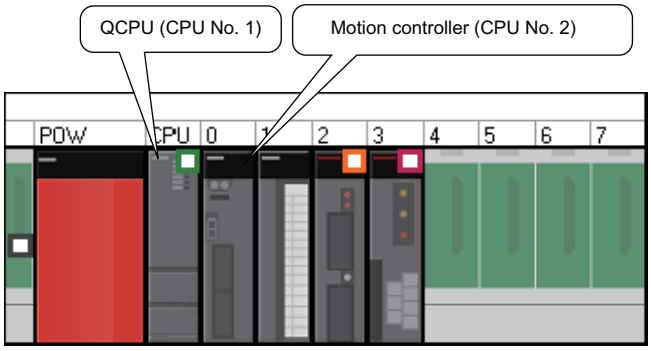
For details, refer to the Help of MELSOFT Navigator.

6 USING PROGRAM JUMP FUNCTION

This chapter explains the program jump function which can start the motion SFC programs/servo programs that are linked with the motion controller programs, using the SFCS instruction/SVST instruction of the ladder programs in the multiple CPU system of Q series.

6.1 Example of System Configuration

This section explains a method for using the program jump function under the following system configuration.



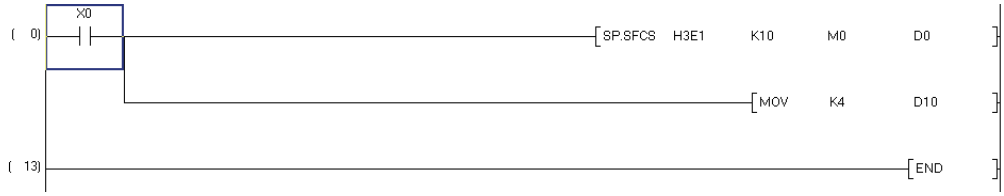
Motion controller start-up programs

The instructions which start motion controller programs used in ladder programs are as follows:

- SFCS instruction (Motion SFC program start-up)
- SVST instruction (Servo program start-up)

For details of the instructions, refer to the motion controller programming manuals of Q173D/Q172D, Q173H/Q172H, and Q173/Q172.

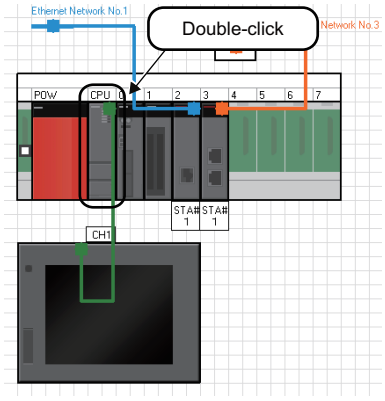
This section explains the program jump function using the following ladder program.



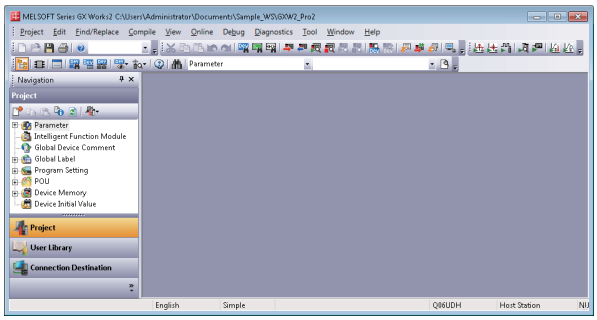
6.2 Program Jump Function

The following is an example of using the program jump function in the SFCS instruction.
When using the program jump function in the SVST instruction, follow the same procedure as shown below.

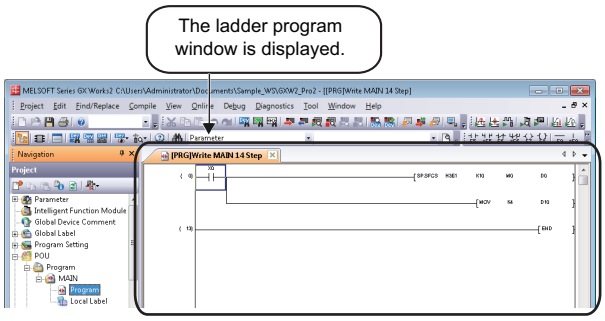
Operating procedure



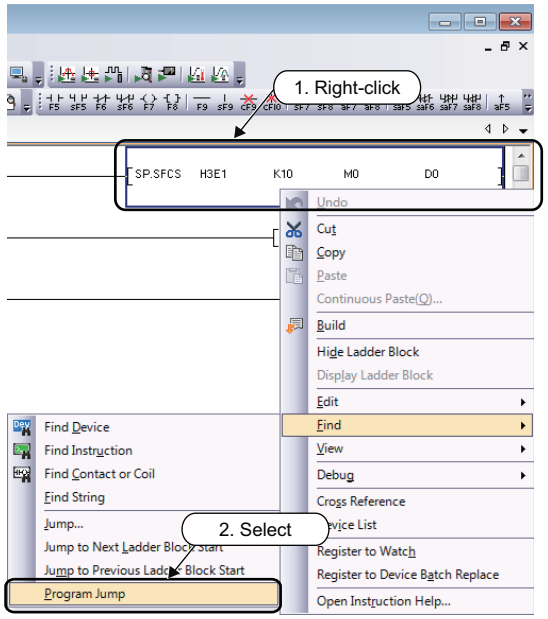
1. On the module configuration window, double-click the controller to which a programmable controller project (GX Works2) is allocated.

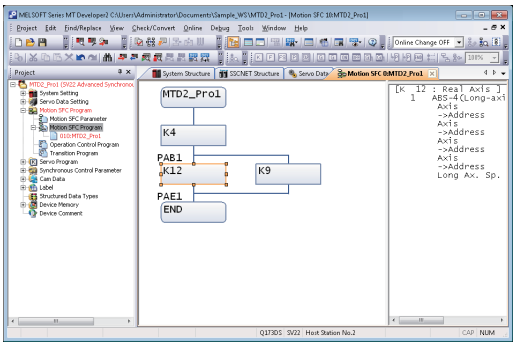


GX Works2 project is activated.



2. Select "POU" ⇨ "Program" ⇨"MAIN"⇨ "Program" on the Project window.
The ladder program window is displayed.





3. Right-click the SFCS instruction on the ladder program window and select [Find] ⇨ [Program Jump] in the shortcut menu.

The motion controller project, which is allocated to CPU No.2 on the module configuration window, is activated and the target motion SFC program is displayed.

MEMO

REVISIONS

*The manual number is written at the bottom left of the back cover.

Revision date	*Manual number	Description
July 2014	SH(NA)-081261ENG-A	First edition
November 2014	SH(NA)-081261ENG-B	■Added or modified parts Chapter 1, Chapter 2, Section 3.1, Section 3.4, Section 3.5, Section 3.6, Section 3.7, Section 3.8, Section 3.9, Section 4.1, Section 4.2, Section 4.3, Section 4.4, Chapter 5, Section 6.1
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